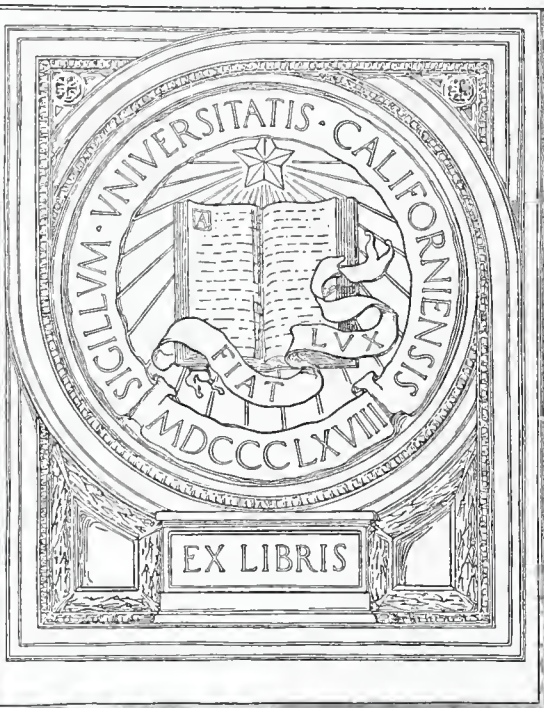


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THE JOURNAL

— OF THE —

Arkansas Medical Society

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VOLUME XI
No. 1

LITTLE ROCK, JUNE, 1914

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UNIVERSITY OF TENNESSEE



COLLEGE OF MEDICINE, SCHOOL OF PHARMACY AND COLLEGE OF DENTISTRY, MEMPHIS

Across the street from Lind-
sley Hall is the Memphis City
Hospital. Capacity 275 beds,
under Clinical control of this
college.

Alongside is to be the Mem-
phis City Hospital for Contag-
ious Diseases. All autopsies
held in city hospital—40 to 60
per year—in the presence of
and with the assistance of
students of Pathology.

Baptist Memorial Hospital,
capacity 150 beds, 40 beds
under control of this College.

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built. All hospitals, includ-
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for Clinical instruction.

Lindsley Hall, four stories,
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Registrar-Bursar, General Li-
brary and Museum, Organic
and Physiological Chemistry,
half of Free Dispensary, Ana-
tomical Pharmacy Laboratory,
one entire floor, and senior
and junior lecture rooms.

Eve Hall, new four-story
Laboratory building comple-
ted in 1912, three large labora-
tories and 21 rooms, office of
Dean, the all-time Professors
of Pathology and Clinical Mi-
croscopy, Bacteriology, Phys-
iology and Pharmacology.
Three departmental libraries,
three research laboratories
and 42 rooms for Free Dispen-
sary instruction.

Rogers Hall, across Forrest
Park from Eve Hall and Lind-
sley Hall, four stories, 37 halls
and rooms, including Auditor-
ium and gallery seating 1000
persons, laboratories of Anat-
omy; Organic Chemistry, His-
tology and Embryology. The
College of Dentistry also has
ample space in this large build-
ing.

Most of the first year medi-
cal subjects are taught here.

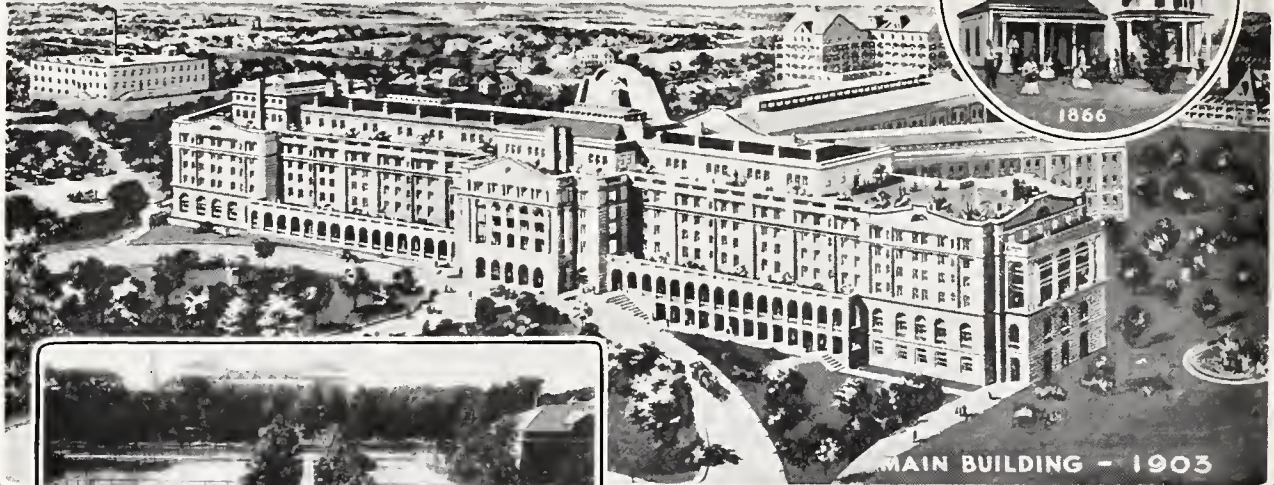
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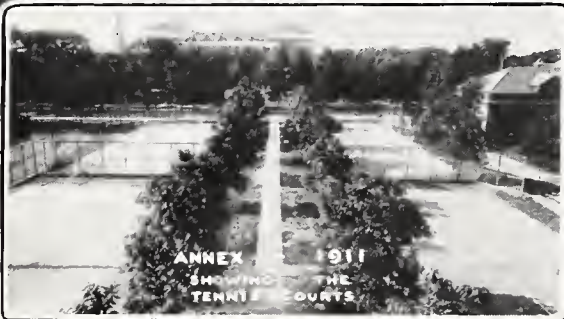
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Beginning September 22, 1913, both at Knoxville and Memphis, a preliminary year in Physics, Chem-
istry, Biology and French or German will be offered. The tuition charge for said course at Memphis will be
\$100.00. At Knoxville the same fee, \$100.00, will be charged to non-residents of Tennessee. To residents of
Tennessee taking this course at Knoxville the tuition will be free, the State paying their railroad fare from
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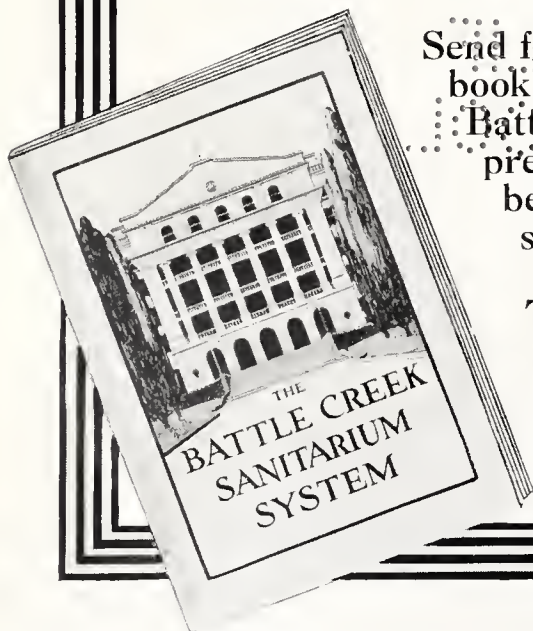
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Dr. _____

Address _____

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Arkansas Medical Society

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. XI.

LITTLE ROCK, ARK., JUNE, 1914.

No. 1

Original Articles.

ANNUAL ADDRESS.*

Frank B. Young, M. D.,
President of the Arkansas Medical Society,
Little Rock.

I wish to thank this organization for the signal honor conferred upon me last spring. I have performed the duties that have devolved upon me throughout the year to my best ability. There have been no questions of legislation to be decided upon during my term of office, because of the fact that the legislature has not been in session. Further in this address I will attempt to call your attention to a number of changes that, in my opinion, should be made in our laws. I will also call your attention to certain matters that should be looked after by each individual physician in his home surroundings. I trust that these suggestions will be received in the spirit in which they are given—that is, the spirit of kindly feeling and co-operation. I first want to call your attention to

MEDICAL EDUCATION.

The matter of medical education is of paramount interest at the present time. Much progress has been made in this line within the last five years, and it is only by an effort that the Medical Department of the University of Arkansas can maintain the high standard that it has set for itself. We would bespeak for it the support of every physician in the state, particularly in the matters of securing endowment funds, and of securing a liberal appropriation from the forthcoming meeting of the Arkansas legislature.

*President's address before the Arkansas Medical Society, at the Thirty-eighth Annual Session, at El Dorado, May 19-22, 1914.

STATE BOARD OF HEALTH.

The work of the State Board of Health has been done under many difficulties, particularly the lack of sufficient funds. Notwithstanding this fact, the board has been enabled to put into force what is said by competent authorities to be the best sanitary code and the best vital statistics code now existent in the United States. It is with distress that I must report that the medical profession has failed to co-operate, as we believe they should, with the State Board of Health. This has gone to the extreme in certain cases of physicians refusing to report notifiable diseases and failing to report both births and deaths. Through such willful evasion of the law, and through carelessness, much of the good that might be accomplished by the State Board of Health has been vitiated. We hope in the future that all physicians will more heartily co-operate with us that we may enforce all our regulations. Most county and municipal health officers are thoroughly interested in this work and are doing everything to promote the cause of public health, but they cannot bear the burden alone, and must have the thorough co-operation of every physician in their district.

FEE AND FEE-SPLITTING.

The fee-splitting evil, it is said, has grown up in the Arkansas profession, and bids fair to continue to grow worse if radical steps are not taken to abolish it. All medical organizations have made efforts to stop this practice, but it continues to go on in an underhanded manner. It is my opinion that each county medical society should take this matter up, and where it can be proved that a member is guilty of this, he should not only be expelled from the society, but the public press should be given a concise and complete statement of the reason why. Publicity seems to me to be the remedy of this evil. The State Society should also take a decided stand in

this, at least to the extent of recommending that a bill be introduced making such practice a felony for both parties to the transaction.

THE PELLAGRA COMMISSION.

This commission was established at the time of the Board of Health conference in Little Rock last fall. The etiology and epidemiology of this dread disease are absolutely unknown, but we do know that it is vastly on the increase throughout the whole of the State of Arkansas. The object of the Pellagra Commission is to study this disease in co-operation with other organizations of like character, and with physicians in public and private practice. A series of cards will be sent to the practicing physicians of Arkansas within a short time, and we trust that we can secure your heartiest co-operation. I would suggest that this society appropriate a sum not to exceed \$500.00 for the expenses of this commission, this money to be used for expense only, postage, printing, clerical assistance, etc., and none to be for salaries.

THE DOCTOR IN POLITICS.

The "doctor in politics" has been a source of amusement and criticism by many, for all time. The old saying that "politics is rotten" is true only in so far as the men who are actively in politics are rotten. If politics is a rotten proposition, it is the duty of every doctor who claims to be a self-respecting and law-abiding citizen to get into politics and make his best efforts to purify it. Only after he has done this is he competent to criticise. The doctor who stands aside and is "too good to be in politics" is not a good citizen; he is not a good doctor; and he is not worthy of a respectable constituency.

MEDICAL POLITICS.

I have often heard it said that all medical organizations are mere organizations for the advancement of some doctor or clique of doctors. Nothing is further from the truth. It goes without saying, of course, that the doctor who attends the medical societies and takes part, contributing his mite to the success of medical organization, whether it be the reward of a wider knowledge of the practice of medicine, or whether it be the reward of holding office in the organization. It is my opinion that the medical organizations of the State of Arkansas are almost altogether free of trickery and chicanery in the matter

of promoting the good of any individual. I believe that every respectable medical man who is eligible to membership in medical organizations should be a part of that organization, and a hard worker in it. Unless he is so, he has no right to criticise the one who does work. No drone has a right to criticise the worker, and no uninformed person has the right to criticise the informed. I wish to say to the critics of the Arkansas Medical Society and its constituent bodies, that, if there is anything wrong with the organization and you have tried to do everything in your power to correct that wrong and failed, it is not your place to quit now, but continue the fight, as ultimately the right will win. If things are going wrong in politics—and politics means the activity of the whole people—it is merely because the good people have stood aside and allowed the unprincipled and dishonest to have control. The good work of the "doctor in politics" in this state is shown by the bettered condition of our State Hospital for Nervous Diseases; by the existence of the sanatorium for tuberculosis; by the very creditable public health legislation enacted by the last legislature; by the raising of the standards of medical education in this state, both by the securing of an appropriation and the required preparation for the Medical Department of the University of Arkansas, and by the establishing of the Board of Medical Examiners. Had it not been for the "doctor in politics" none of these things would have been accomplished, and I am sure that no one will say but that all of them are for the good of the whole people of the state. The people of the state as a whole look to the medical profession for instruction and leadership along these lines, and the individual doctor who fails to give to the people this instruction and leadership fails to do his duty. I want to ask of each member of this society that when they get home, if they find politics "rotten," to get into them and purify them, to get behind the men who are leading a good fight in all lines, and do their best to help out by their moral support at least.

HOSPITALS.

An effort is being made to secure for the State of Arkansas a state general hospital. This institution should be established in Little Rock and run in connection with the Little Rock City Hospital and the Pulaski County Hospital, under the control and direction

of the Medical Department of the University of Arkansas. This hospital would not only be a worthy charity and one that is much needed, but would furnish suitable medical instruction for the students of the Medical Department of the University of Arkansas, and would ultimately make that institution one of the great medical schools of the country, giving to the State of Arkansas a set of practitioners the equal of any to be found in any state of the Union. Some money has been promised to this end, and an effort is being made to secure the use of the David O. Dodd memorial fund for this purpose. Further effort will be made at the legislature next winter to secure an appropriation for this purpose. Our public-spirited, wealthy citizens should be interested to the extent of providing some endowment for this enterprise. I bespeak for this your most hearty support.

ERADICATION OF MALARIA.

Malaria is a most widespread disease in Arkansas and it is economically the most harmful. It is a disease that can be absolutely stamped out, as is shown by the experience of the United States forces in the Panama Canal zone. The well-known fact that it is conveyed from man to man by means of the anopheles mosquito alone is the key to the situation. Not only should each individual infected with malaria be skillfully and persistently treated until all the plasmodia are killed in the blood, but the habitat of the mosquito should be destroyed either by drainage or by careful oiling of all breeding places. The drainage or oiling of all stagnant pools, the emptying of all tin cans, water barrels and like water containers on all premises, will dispose of the mosquito absolutely. It is a well-known fact that many persons who are not actively suffering from malaria are carriers of the disease, and the mosquito sucking their blood may cause the disease to reach its full development in other persons. The drainage of ditches and the disposal of stagnant water along roads not only benefits the roads, but conduces to the better health of the people. This is one sanitary interest in the good roads movement. The conditions existing in southern and eastern Arkansas are such as to require the combined forces of the federal government, the state government and the individual owners and tenants to secure the best results; but I venture to prophesy that within the next quarter century malaria

will be as rare in this state as is yellow fever now. This can only be accomplished by a persistent educational campaign in which every doctor should be the leader in his home community.

THE NEGRO AS A MEDICAL FACTOR.

We have been too prone to look upon the negro as a necessary evil, or as a useful slave, according to our personal ability to use him. The people of the South have thought but little of the evident relation he bears to their own health, and the health of their families. The habit of the negro in coming to work and being intimately associated with the family through the working hours, and going home to most any kind of a foul den to stay at night, often taking washing or other work with them, gives most abundant opportunity for the transmission of infectious and contagious diseases. It is a well-known fact in medical literature that the negroes as a rule are most abundantly susceptible to, and almost without exception are infected with tuberculosis and syphilis. When we stop to consider the intimate relation of the negro cook, the negro hostler, the janitor or yardman to the family life, should not we realize that too often there is here an unconsidered element of danger. Not only may the diseases mentioned be carried this way, but measles, scarlet fever, small pox, typhoid fever, or any of the infectious diseases may find their abiding places in negro habitation, and be carried to unsuspecting white employers. Let us remember that "disease is democratic," that it is no respecter of persons; that tuberculosis or smallpox contracted from a negro is just as loathsome and just as fatal as if it had been contracted from a white person. I mention these facts to bring to your mind as forcibly as possible the necessity of the supervision of the health of the negro race. The negro physicians, until recent years, have been uneducated. It is my pleasure to say to you that a number of years' experience on the State Examining Board convinces me that the majority of recent graduates are well-informed men, and it is my opinion that the white physicians should be interested in their progress and instruction, and when a helping hand can be given, it should be extended to these men. Reputable negro colleges should be encouraged and their entrance and finishing requirements kept as high as those in schools for the whites.

DELEGATES TO MEETING OF AMERICAN MEDICAL ASSOCIATION.

One of the policies of the Arkansas Medical Society, that to my mind is a mistake, is the habit of changing delegates to the A. M. A. each year. It is my opinion that this society should choose a delegate and if he performs his duty satisfactorily, keep him there through a number of years. It is a well-known fact that acquaintanceship and experience in any legislative body is of vast importance to any individual, and this acquaintanceship and experience can be gained only through years of service. I would recommend that so long as the services of the delegates are satisfactory, and he is able to attend the meetings of the A. M. A., that he be re-elected to the office from year to year.

UNDERGRADUATE MEMBERSHIP.

This question appears with its perennial freshness, and, in my opinion, will never be settled until it is settled right; that is, until undergraduates are permitted to become full-fledged members of the county and state societies. Nearly every state in the Union now permits undergraduate membership. There are in every county in the state a few undergraduates who would be glad to join medical organizations and take part in the work. Their membership would not only be of benefit to them and their patients, but of benefit to the society. I know several men in northwest Arkansas who lacked but a few weeks of completing the allotted two years school system, and who are as well qualified for the practice of medicine, and give as good satisfaction to their patrons as the average graduate. It is an injustice to medical organizations, and to these men, to prohibit their membership. The reason for their failure to graduate was that obstacles, that seemed insuperable to them at that time, came in the way and they began to practice in the days of no license requirements or of lax license requirements. Having become men of families, and otherwise busily engaged, it became absolutely impossible for them to again take up the study of medicine in a college with its rapidly advancing requirements, and graduate. I wish to recommend to this meeting that a resolution covering this matter be again introduced. In as much as the constitution plainly says that each county shall be the judge of its own membership, and that the race of undergraduate physicians is rapidly dying out,

and that there is no possibility of them ever holding the balance of power in medical organizations, I believe that the time is ripe to admit them.

STATE BOARD OF MEDICAL EXAMINERS.

The work of the State Board of Medical Examiners has been wholly satisfactory. They have put the requirements for the State of Arkansas upon a plane equal to that of any state in the Union, and have been a vital factor in securing proper medical education not only in the Medical Department of the University of Arkansas, but in every school the majority of whose students come from this state. I would suggest as a method of increasing the efficiency of this board, that we attempt to secure a law at the next meeting of the legislature providing for a board to be composed of one member of the regular profession from each congressional district, and one from each the eclectic, the homeopath and the osteopath to be selected from the state at large.

In as much as this seems to be a proper pro rata representation according to the number of applicants examined, and further that there is only the difference in therapeutics between the various schools, I believe that this is a just and right law and the time is now ripe for its enactment. The fundamental principles of medicine, anatomy, physiology, chemistry, biology, etc., are practically the same, regardless of the system of therapeutics practiced.

I have had some correspondence with the leading members of each sectarian school, and some of the members of some of the boards, and so far as I can find, the majority are in favor of such revision of the law. I would further suggest that the time of the meeting of the examining board be changed from May and November to January and July, as this will give a better time for the spring graduates to get before the board.

The time now set comes before the end of the term of most schools, and causes a great many applicants to have to wait for the November examination before they can begin to practice, or be put to much trouble and annoyance in attending the May meeting. This works an injustice to the applicants, and it should make no difference to the board at what time of the year they are called upon to meet.

THE HEALTH CAR.

This was instituted by Dr. Bradford of the Hookworm Commission and is patterned after the cars that have been successfully operated in a number of states. The project is to equip a car with a complete public health exhibit and send it throughout the state over every railroad in the state, thus arousing an interest in the work. The sum of \$100.00 is desired from each county and suitable subscription cards have or will be sent to interested parties in each county with the hope that the amount may be promptly raised. It is desired to interest each county so that everyone will feel a personal interest and ownership, rather than try to raise the desired amount by large subscriptions from a few, which might readily be done. I hope that each physician present will take this matter up when you return home, and work up an interest with your home people.

MEDICAL LITERATURE.

The Journal of the Arkansas Medical Society is now in a most excellent condition, well edited and worthy in every respect, justifying to the full the confidence of those of us who first insisted on its establishment. It should be carefully read by every member of the society and all should do everything possible to encourage and better it. It is a well-known fact that the mind grows upon what it feeds, and we should do everything to promote the dissemination of good medical literature. The so-called "independent journals" are only too often wholly dependent upon proprietary medicine fakes for their lives and cannot be depended upon in many respects. I would not condemn them in toto, for many contain valuable additions to medical knowledge, but I would insist upon every aspiring medical man reading carefully the organs of the organization, particularly The Journal of the State Society and The Journal of the American Medical Association. In this way only may a true perspective be established. The plea that these journals are "too scientific," as so often advanced by certain interested writers, is pure rot and should appeal only to the ignorant or the mentally lazy.

HOT SPRINGS.

For many years this state has had within her borders one of the most noted health and pleasure resorts. In the past the tendency has been to consider it as a pleasure more than a health resort. This attitude is now passing

and the more serious-minded of its inhabitants are beginning to plan a greater spa than ever. Those of us who have sent our patients who refused to get well under our ministrations to the springs and have seen their rapid restoration to health under the treatment there given are hoping devoutly that this effort will meet with the greatest degree of success. Many of the noted waters of Europe have no greater virtue than is to be found at our doorstep; let us give such aid and encouragement as we may.

It is my pleasure to say to this organization that I believe it to be in a most healthy condition. To be sure, some friction has developed at times during my administration, but I am of the opinion that everything is now settled for the better, for the good of the society and for the good of the individuals in question. Most all of the county and district societies are in good and harmonious working order. We have before us one of the best programs I have ever known at any medical meeting, and I am sure that all will be pleased and profited by our sojourn in this hospitable city.

DISCUSSION ON MENINGITIS.

(Continued from p. 304, May Number.)

Dr. Lutterloh (Jonesboro)—We have had a scourge of meningitis in our section. Lepanto was one of the storm centers and it appeared at other points within a radius of fifteen miles of Marked Tree. I believe the State Board of Health sent an assistant to that district to investigate and render assistance. We also organized our local men and all did very thorough work. I think Dr. McElroy had two cases in the same family which were traceable to one focus. At Jonesboro at the present time we have two cases in the same family, showing that there is a contagious element to be dealt with in combating it.

I believe that Black, in his work with Sophian at Dallas, says that there is a zone of infection, and that doctors and nurses should not come near a patient, except when it is absolutely necessary, and then within the space of three feet; that we should never inhale a patient's breath, especially when we have a bad cold or any form of laryngitis or tonsillitis. Where we are exposed we should immediately use an antiseptic mouth wash or mouth spray of some form; inhale the spray and douche the nose with spray.

We know that meningitis will germinate rapidly when it finds its normal habitat within any diseased throat or fauces. I had rather an exciting experience. My wife and my only son took it, together with five others, and it looked as though everybody exposed to these cases was infected in some way.

Early diagnosis is paramount. If you cannot make a diagnosis early, if you cannot do anything else, take off the fluid. If you find it cloudy, begin your treatment at once. I do not believe it is necessary to submit the serum to microscopic examination; simply go ahead and use the injection of Flexner serum. One of our local men had seemingly the best

success. In a limited number of cases he reported 75 per cent of cures.

From what I can gather from the best authority at my command, fifteen cubic centimeters is a plenty to give any patient suffering with cerebro-spinal meningitis. His successful treatment and excellent ratio of recoveries bear out the statement. He thinks that we give too large doses. I agree with him.

We had a patient who came into the hospital at Jonesboro. We gave him thirty c.c. at intervals of eight hours, injecting into the spinal canal between the third and fourth lumbar vertebrae. To all appearance the man got along splendidly; took several injections: progressed very nicely; sat up and walked around the hospital ward every day. I felt confident that he was going to get well, and we allowed him to go home. Two or three days later his sister telephoned me that our man had temperature and was feeling very badly. He got worse right along and died in a short time. I think he had streptococcal infection and not of meningococcus, because he came into the hospital seemingly with pneumonia and in five or six days thereafter developed meningitis. I do not believe that pneumococcus is the real germ of meningitis, because we know from actual experience that the meningococcus can be absolutely demonstrated.

I have more confidence in the bacterin as a preventative measure. We vaccinated fifty people and out of these not a single case developed subsequently. Black took ten men of Dallas and injected them all with the meningococcal bacterin in three doses. Just one year afterward he asked these same men to take it again. They came forward and took three doses and had no reaction whatever.

In my first case I gave a large dose and repeated every third day. After taking the first dose my patient did not improve much. There was considerable headache and cardiac disturbance, and I thought he was going to have considerable trouble; but it passed off. I think there is a great deal in the volume, or in heroic doses, if you prefer that form of expression.

We people over here in Arkansas have the doubtful honor of sending the epidemic over to Dyersburg, Tenn. A negro went over there from our vicinity and gave it to two negroes working in a lumber camp, and they infected eight or ten others over there.

I believe every physician in Dyer County had more or less experience in that epidemic, and they believe in the anti-meningococcal serum just as much as they do in the anti-diphtheritic, the typhoid bacterin in the prevention of typhoid fever, or Jenner's discovery for the eradication of smallpox. I do not agree with the essayist in placing such a low estimate on the value of the meningococcal vaccine. My own experience leads me to the diametrically opposite conclusion.

A. U. Williams (Hot Springs)—I have been very much disappointed in the discussion that has followed the reading of Dr. McElroy's excellent paper. The most interesting part of the subject, to my mind, has been overlooked. Dr. McElroy merely touched on the point, but did not elaborate as much as I would like him to have done as to the contagiousness of meningitis.

Our old-fashioned doctors have no microscope, and if they had, could not tell the difference between streptococci, meningococci, gonococci or diplococci for that matter. It seems to me there is danger, and that the most important thing to be given to the general public is whether it is contagious or not, and what means should be used to protect communities from contagion. Is the fact well established that the serum treatment is a positive cure? The doctor did not state his conclusions as to result of research work. There seems to be a difference of opinion existing. In whatever phase the question

comes up, there seems to be considerable doubt whether quarantine regulations or whether preventive antitoxin treatment is of value.

Dr. Lutterloh (Jonesboro)—I would like to know if he had a case of cerebro-spinal meningitis as diagnosed from the symptoms, made puncture and drew off the fluid and found it was not cloudy, or looked like buttermilk as Dr. Dibrell has mentioned, and had high pressure and it came very rapidly when being drawn off, if he would not immediately give fifteen cubic centimeters of the serum and await further symptoms, especially if there were other cases in the community at that time? This method may invite criticism, but it forestalls dragging through a case, as one gentleman expressed it, and it gives us an opportunity to test the efficacy of the anti-meningococcal serum in the early stage of the onset.

Dr. McElroy (Essayist)—I feel very much gratified at the extensive discussion elicited and the interest displayed by the number of questions propounded as to the contagiousness of the disease. In the first place, I would say that the history and my knowledge of the disease, as well as what we can gather from clinical observation of the disease, we are not warranted in classifying it as a highly contagious one; but there are just enough instances in my own experience and reported by others to justify the assumption that sometimes the disease may be conveyed from one individual to another. There is great similarity between meningitis and pneumonia. No doubt that has been the experience of nearly all physicians who have treated these conditions, and they have known epidemics of lobar pneumonia in which the individuals have contracted pneumonia by conferring it one to another. We do not usually, however, speak of pneumonia as a contagious disease. There is an intimate and marked similarity between the contagiousness of pneumonia and the epidemics of sporadic meningococcal meningitis. There are a great many things about outbreaks of this disease which may be explained by this fact.

As stated in the paper, the great majority of individuals in the community are immune to meningococcal infection. What these antibodies are which protect these individuals from contracting the disease when he may harbor the organisms in his mucous membrane, we do not know; but for that very reason you will find that the individual who comes in contact with a case of cerebro-spinal meningitis will have the meningococci distributed upon his nasal mucous membrane. Let this man go into a distant part of the community and come in contact with someone who is susceptible, and he contracts it. This will explain why it spreads and jumps about the country in more or less widely separated communities.

The facts, so far as we know them, do not give us sufficient foundation to regard this disease as a highly contagious one. I emphasized this in my paper, as I believe that individuals and communities are prone to become panicky upon the outbreak of a case of cerebro-spinal meningitis. I think the ordinary measures which are used for the prevention of this disease would inhibit its spread. Isolation of patients should be instituted to safeguard the community as much as possible, but the rigid shotgun quarantine, I think, is a senseless barbarity in the presence of outbreaks of epidemic cerebro-spinal meningitis.

Now, as to the destruction of the meningococci in the mucous membranes of individuals coming in contact with infection—so-called carriers—I make no positive statement with respect to the value of bacterin as a prophylactic measure in these conditions, because I do not think there is sufficient evidence found from the experience of students and authors, or from a clinical point of view, to warrant us in saying whether or not meningococcal bacterin pro-

duces any appreciable effect in the prevention of the disease. While Sophian and Black have exhibited zeal and have no doubt experimented, observed and demonstrated a great many cases of individuals that have been injected with meningococcic bacterin, as I have not had opportunity to confirm or disprove their work, it would not be becoming in me to criticize it; but from close study of their work I am constrained to say that from this distance their work and results look to me very much like men who started out to find something and were determined to succeed. Anyhow, even if they can prove the efficacy of the serum treatment and the development of antibodies, it remains for the continuation of clinical test as to whether or not these conditions are going to be proven.

Of course, we must realize the great danger of infected immunes spreading the disease. There is no doubt but that the great majority of individuals are immune. Dr. Lutterloh injected quite a number of people and they were probably in close contact with those who were not injected and not one of them took the disease; so we cannot estimate the effect of the immunity which exists.

Dr. Lutterloh—I appreciate your position; but Dr. Albright of Dyersburg, Tenn., wrote a letter to every doctor in Dyer County inquiring as to the result of prophylaxis by the use of the meningococcic bacterin in their hands. Replies showed that ten thousand people were vaccinated with three treatments of five c.c. doses. Two of these developed meningitis, also the nurse in charge of them became infected; all three recovered. Two developed meningitis, as I have stated, but all recovered after the meningococcic bacterin vaccination had been administered.

Dr. McElroy—How many people are there in Dyer County?

Dr. Lutterloh—About thirty thousand.

Dr. McElroy—How many people in Dyer who mingled with those who were exposed to the infection?

Dr. Lutterloh—There might be twenty thousand of them; and there were ten thousand who had the treatment, with only two of them getting the infection. I am not criticising—just arguing the point.

Dr. McElroy—We jump too readily at figures to prove our statistics of value. I doubt not that the ten thousand people injected in Dyer County were people exposed to the disease. I have no doubt that they went around among people who might have been exposed that had had no injection. Therefore, you cannot always tell. What are you going to do about the twenty thousand who were not vaccinated?

Dr. Lutterloh—We had one of the very best public health men in the state to assist during the epidemic in our section. We have not lost any cases after vaccinating ten thousand people who were exposed to meningitis. That leads me to believe there is virtue in the treatment.

Dr. McElroy—I am not decrying the meningococcic bacterin. I do not know whether there had been previous exposure. I have no objection to immunizing your patient by vaccination; but what I do object to is that probably we are holding ourselves in a sense of false security as a result of vaccination, because I do not know whether it is of value, or subject to controversy. You will find it a very difficult matter to furnish proof of the value of injecting bacterins as a prophylaxis. Before I accept its value I want more confirmation. There are not sufficient clinical findings yet to determine the value of meningococcic bacterin. I would not for the world deter any gentleman from testing it by vaccinating as many people as they want, who come in contact with cases of cerebro-spinal meningitis. I do not think because ten thousand people who were treated did not have the disease, that there might not have been at least twenty thousand more people there who were

not vaccinated, who did not have the disease. There is where you will admit there is some doubt arising.

Dr. Lutterloh—They were all exposed to the infection.

Dr. McElroy—These others may have been exposed, too.

Dr. Lutterloh—I am obliged to contend that probably there is some virtue in it.

Dr. McElroy (resuming)—I hope there is, and I do not say there is not. Of course, I think it would be well if all cases could be isolated, but I do not believe in dealing with them with shotgun quarantine regulation.

In reference to diagnosing the disease: Of course, there is but one sure way to diagnose the disease, and that is by testing the spinal exudate. I cannot but concur with Dr. Carmichael, that every means possible should be utilized to determine the nature of the infection. I believe that for all ordinary practical purposes that the presence of a Gram negative diplococcus in the cerebro-spinal fluid is sufficiently decisive for diagnosis of meningococcic infection. Of course, it is always desirable to resort to culture in confirmation as Dr. Carmichael has suggested. Not infrequently in the presence of meningococcic meningitis, especially in a late stage of the disease, you will find negative culture.

Dr. Carmichael—How would you exclude a mixed infection, depending on the Gram stain? You could not positively make a diagnosis of the presence of a mixed infection, except by culture. Suppose you had your staphylococci present and they were dead; would not that show Gram negative?

Dr. McElroy—I think that is a question to be settled largely by the technic of the Gram stain.

Dr. Carmichael—I agree with you about that. I secured the first serum that was used in the State of Arkansas; I got it from Flexner in 1909. It was gratuitous at that time. It was several years before Mulford and Parke-Davis entered the market. Flexner would not let me have it unless I would assure them that I would confirm every diagnosis by culture, and give them a complete report of results obtained. The unreliability of the Gram negative test was apparent to them and they insisted on culture growth above everything else.

Dr. McElroy—I think you are right to safeguard your findings by every available test to determine the nature of the infection and be sure that your patient has the meningococcic organism. That does not modify the statement, however, that for all ordinary practical purposes a Gram negative test for diplococci is sufficient to make a diagnosis. Along with it you might have gonococcic meningitis; but these cases are exceedingly rare. There have been cases of gonococcic meningitis, but very few have been reported. But, as Dr. Carmichael has intimated, the culture test might as well follow where we believe meningitis to be present.

Now as to treatment: Answering Dr. Dibrell's question first with respect to the administration of anti-meningococcic serum. I believe that his precautions to secure thorough asepsis is an exceedingly good point. I have seen on two occasions cases start out with meningococcic meningitis, followed by colon meningitis and die from colon meningitis. It is not unlikely that probably this colon meningitis was a secondary infection as a result of injecting the serum.

As to the manner of administering the serum, I think the gravity method is far superior.

Now a few words about the quantity of serum. I do not believe that lumbar puncture and the injection of serum into the spinal canal is entirely without danger. When we first began to use this method of treatment, I believe that many patients were harmed and some killed by the injection of too large doses of serum. This has been early brought out,

especially by Sophian, whose work in the Dallas epidemic must be highly praised. Now, that means the injection of large quantities of serum and consequent lowering of the blood pressure. These cases very frequently die from respiratory failure as a result of this lowering of the blood pressure. Now, by carefully following and watching the symptoms you can determine in a measure this condition, but the surest way would be to take simultaneous blood pressure. Whenever we are injecting bacterin, it is safer to let it in slowly as Dr. Dibrell has suggested.

In administering serum into the spinal canal, I think it would be well to have your assistant look after the effect upon the blood pressure.

Dr. Meek (Camden)—Does it cause them to feel stupid and drowsy?

Dr. McElroy—Yes; it will be caused by a too rapid lowering of the blood pressure. In my cases I believe that there was not much serum required. I feel quite sure that I have given too much in all except a few cases. My opportunities for studying the progress are not very large, but I know that a great many of them die. This is probably due to the fact that my practice is largely consultation work. I see these cases too late. The serum is the only thing we know that will do them any good, and I would call attention to the fact that in the presence of cloudy exudate we should always administer the serum.

Answering Dr. Lutterloh's question: In the presence of a cloudy fluid and high pressure during the prevalence of an epidemic, I should most certainly give the serum. But where there are just a few cases of a sporadic nature, which might not develop cerebro-spinal meningitis, we might defer till a second examination; but if there is turbid fluid and high blood pressure, I would advise to give the first dose and then depend upon the examination to determine subsequent doses. Give your four doses anyhow. I knew one boy who got well on two doses. He was stricken in the middle of the day; unconscious; cloudy fluid; after a day or two one dose was given him, but the next was not administered for six or seven successive days; he recovered. I think four doses should be given on continuous days; give it until the meningococci have entirely disappeared.

There is a great tendency on the part of cerebro-spinal meningitis to display an intermittency, especially in sporadic attacks. We find sometimes that a patient may get along very well after one or two injections. We find the patient doing exceedingly well, judging from appearances; then in the latter part of the disease the clear fluid is likely to occur, even with the polymorphonuclear cells, which do not appear numerous.

Dr. Dibrell (Van Buren)—Speaking of clear fluid in meningococcal meningitis, in Dr. Sophian's book, which I have read, he speaks of clear fluid before the patients have had any meningococcal symptoms, the usual symptoms of meningitis. He says you will find clear fluid possibly twenty-four to forty-eight hours before the meningococcus asserts itself in the spinal canal. He recommends in those cases to always give the serum, and in that way you will stop the progress of the disease. Am I right about that?

Dr. McElroy—I think you are quite right, whether you would administer serum after the manifestation of clear fluid in the midst of an epidemic; I say yes.

Dr. Dibrell—By giving the anti-meningococcal serum you relieve the patient with the clear fluid before the meningococci get into the spinal canal.

Dr. McElroy (resuming)—Answering Dr. Carmichael's question as to dry taps. I have sometimes had these dry taps. Sometimes the foramina of Magendie and Luschka may become closed and you will get a dry tap; sometimes the fluid may be so thick it will not run through the needle, and you get a dry tap; but, as a rule, if you get into the spinal canal you will get spinal fluid. With respect to

washing out the spinal canal with salt solution, I have had no experience.

On motion of Dr. Lutterloh, seconded by Dr. Carmichael, a rising vote of thanks was given Dr. McElroy for his excellent paper and the pleasure his visit afforded.

Dr. McElroy—I want to thank you most sincerely for this signal honor, and to assure you of the great pleasure of being with you. I hope as the days go by we shall become better acquainted.

APPENDICITIS.

A case that is a little curious in its cause and accompaniments is reported by F. W. Hitchings and H. G. Sloan, Cleveland (*Journal A. M. A.*, April 25). The patient, a young woman, had the year before taken a large quantity of bird shot on recommendation of a friend, to cure what was called "Cuban itch." The eruption (probably scabies) disappeared, but the following lead poisoning was almost fatal. Between two and three months before she was first seen by the reporters she took shot again for another kind of eruption on her face, taking altogether a large tablespoonful of BB shot. The abdominal tenderness which had been troubling her became worse and a diagnosis of acute appendicitis was made, operation performed and the appendix, weighing 8.09 gm. and containing eight bird shot, was removed. About a week after the operation she passed over forty more and a roentgenogram later revealed no more in the abdomen, though there were still some symptoms of lead poisoning, and the patient was referred back to her family physician. The authors say that the case is of interest on account of the peculiar therapeutic use of shot, the severe lead poisoning following and the excessive weight of the appendix and its content.

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Anonymous communications will not appear in the columns of this Journal, no matter how meritorious they may be.

Editorials.

THE EL DORADO MEETING.

The thirty-eighth annual meeting of the Arkansas Medical Society was held at El Dorado, May 19 to 22, inclusive. The Union County Medical Society and the people of El Dorado did everything in their power to make every doctor in attendance feel at home. They exerted themselves to the uttermost for the entertainment of the members and visitors. The beautiful new Elks' building was thrown open for the social entertainment of the visitors, and at no convention ever held in the state was more generous hospitality and solicitude shown. Before giving a brief account of the proceedings we will give the list of officers elected for the ensuing year, which follows:

President—St. Cloud Cooper, Fort Smith.

First Vice President—G. A. Warren, Black Rock.

Second Vice President—R. A. Hilton, El Dorado.

Third Vice President—S. S. Rice, Rogers.

Treasurer—Wm. R. Bathurst, Little Rock (re-elected).

Secretary—C. P. Meriwether, Little Rock (re-elected).

Councilors whose term had expired:

Second District—L. F. Evans, Barren Fork.

Fourth District—E. C. McMullen, Pine Bluff.

Sixth District—C. A. Archer, De Queen (re-elected).

Eighth District—W. A. Snodgrass, Little Rock (re-elected).

Tenth District—J. T. Clegg, Siloam Springs (re-elected).

Delegate to the American Medical Association—Robert Caldwell, Little Rock.

Little Rock was unanimously chosen for the next meeting place.

Among the notable features of the meeting were the address by George W. Crile of Cleveland; the symposium on tuberculosis, in which papers were read by Sam E. Thompson of Carlsbad, Tex.; Boyd Cornick of San Angelo, Tex.; John Stewart, superintendent of the Tuberculosis Sanatorium at Booneville, and C. C. Bass of New Orleans; the pellagra clinic, the organization of county secretaries and the banquets of the Arkansas Medical Society and the various alumni.

The members and visitors began receiving attention the moment they arrived, the members of the Union County Medical Society being at the depot to welcome them and to escort them in automobiles to the hotel.

HOUSE OF DELEGATES.

The House of Delegates convened in the courthouse at 3 o'clock in the afternoon of Tuesday, May 19. President Young in the chair.

The Rev. Vantcase of El Dorado offered the invocation, after which S. J. McGraw, president of the Union County Medical Society, delivered the welcome address. Welcome addresses are often merely perfunctory in style, but Dr. McGraw made his hearers truly feel that they were really welcome. He impressed them with his sincerity, and the fact that he was sincere both as to himself and in representing the people of El Dorado was confirmed throughout the meeting.

President Young delivered his address to the House of Delegates, after which the reports of the standing committees were made. The committees appointed by the president were:

Credentials Committee—J. G. Eberle, E. F. Ellis and A. M. Zell.

Reference Committee—J. B. Roc, E. L. Watson and J. C. Hughes.

Committee on Constitution and Resolutions
—L. P. Gibson, G. A. Hebert and J. C. Wallis.

FIRST GENERAL SESSION.

At 10 o'clock Wednesday morning the first general session convened in the courthouse. Rev. J. S. Thomas of El Dorado offered prayer and Judge Neil C. Marsh, representing the mayor, delivered the address of welcome on behalf of the city. He made special note of the good work being done by the profession in educating the public to the necessity of observing sanitary laws and those for the prevention of disease. Dr. L. P. Gibson of Little Rock, a member of the society since its organization, delivered the response. Dr. Gibson has a saving sense of humor and his response, sparkling with witticisms and filled with amusing reminiscences, put the house in thorough good humor. He was frequently interrupted by laughter and applause.

President Young then delivered his annual address, which is published in full in another column. He reviewed the work of the year and made a number of very valuable suggestions, some of them being mentioned in another editorial in this issue.

The scientific session began at 2 o'clock with the Section on Dermatology, J. M. Proctor of Hot Springs, chairman. The following papers were read: "Syphilis of the Kidneys, with report of Cases, with Treatment," by E. A. Purdum, Hot Springs; "Malignant Degeneration of Skin Blemishes," by Wm. R. Bathurst, Little Rock; "Diagnosis and Treatment of Syphilis of the Nervous System," by Loyd Thompson, Little Rock; "The Evolution of Knowledge Appertaining to Syphilis," by Abner H. Cook, Hot Springs.

At 4 o'clock the Section on Surgery met, Chas. S. Holt of Fort Smith, chairman. After the address of the chairman, Herbert Moulton of Fort Smith read a paper on "The Surgical Treatment of Glaucoma, Outlining Elliot's Operation," and E. F. Ellis of Fayetteville read an essay on "A Case of Typhoid Intestinal Perforation—Operation with Recovery."

OPEN MEETING ON TUBERCULOSIS.

On Wednesday night an open meeting was held in the Lyric Theater, to which the general public was invited. It was under the auspices of the Section on State Medicine and Public Instruction. Papers were read as follows: "What the Laity as Well as the Doctor Should Know About Tuberculosis, and

Why," by Sam E. Thompson of Carlsbad, Tex., who was formerly a citizen of El Dorado; "How Do You Treat Tuberculosis? What Serum or Vaccine Do You Use?" a reply in brief detail to the inquiry of a medical friend, by Boyd Cornick, San Angelo, Tex., and a paper illustrated with lantern slides by John Stewart, superintendent of the Arkansas Tuberculosis Sanatorium, concluded the symposium. There is so much ignorance on the part of the public as to preventive measures to stop the spread of tuberculosis that this meeting was especially valuable in the effort to enlighten the public; and the papers were not so technical but that the audience could comprehend them.

THURSDAY'S SESSIONS.

Thursday was devoted to the Section on Practice of Medicine, C. J. March of Fordyce, chairman. So many good papers were read that it is impossible to give space to each, but it may be said that those of Robert Caldwell of Little Rock on "Nasal Septum," Thomas Douglass of Ozark on "Mucus Colitis," and W. A. Snodgrass of Little Rock on "Infections of the Gall-Bladder" were especially excellent.

At 4 o'clock this session adjourned to meet in the Lyric Theater, where, under the auspices of the Section on Surgery, George W. Crile of Cleveland read an instructive paper on "Anoci-Association," illustrated with lantern slides, and J. P. Runyan of Little Rock read a paper on "The Relation of the Laboratory to the Work of the Surgeon." This paper was also illustrated by lantern slides and both papers elicited a general and very instructive discussion.

Resolutions were adopted commending the management of the State Hospital for Nervous Diseases at Little Rock, of which J. L. Greene is superintendent, and providing for a suitable memorial tablet in the Arkansas Tuberculosis Sanatorium at Booneville, commemorating the life work of the late Dr. John S. Shibley of Paris, Ark., the father of the crusade against tuberculosis in this state. A resolution was also passed discontinuing the annual banquet at society meetings.

LAST DAY OF SESSION.

The Section on Practice of Medicine met at 8:30 Friday morning, C. J. March presiding. The feature of the morning session was the presentation of about twenty cases of pel-

lagra, patients who were examined by many visiting physicians.

Frank B. Young made an address upon the subject of the Arkansas Pellagra Commission, the progress it was making, and urged co-operation on the part of the patients and physicians in reporting cases of this disease to stamp out which such earnest and resolute efforts are being made.

A paper by T. F. Kittrell of Texarkana on "Diagnosis" and one by C. C. Bass of New Orleans on "Diagnosis and Cure of Malaria" were especially worth while.

At 2 o'clock in the afternoon the Section on Surgery met and St. Cloud Cooper was elected chairman. Interesting papers were read by Robert G. Carlin of Fort Smith, R. A. Hilton of El Dorado and Dr. Cooper.

SECRETARIES ORGANIZE.

One of the most important features of the whole meeting was the organization of county society secretaries. As has been repeatedly pointed out in *The Journal*, a good secretary is the life of a society. Hence, the best possible results for the good of the State Society may be expected from an organization composed wholly of secretaries.

Officers of the new association were elected as follows: President, H. H. Niehuss, El Dorado; vice president, M. L. Norwood, Lockesburg; secretary-treasurer, Thomas Douglass, Ozark.

ANNUAL BANQUET.

The annual banquet was given at the Garrett Hotel, the Union County Medical Society and the citizens of El Dorado tendering it to the members and visitors. Sam E. Thompson presided as toastmaster and filled the part most ably. The toasts and responses were as follows:

"Host and Guests," S. J. McGraw, El Dorado.

"The Lawyer and the Doctor," Judge Neil C. Marsh, El Dorado.

"State Charity Hospital as Proposed by Tulane Alumni," J. P. Runyan, Little Rock.

"Legislation for the People as Inaugurated by the Doctors," Col. J. K. Mahoney, El Dorado.

"Medical Darwinism," W. T. McCurry, Little Rock.

"Gas and Gastromics," Eugene Rosamond, Memphis.

"What the Banker Can Do for the Doctor," Hendrick Alphin, El Dorado.

"The Booster," H. H. Niehuss, El Dorado.

"Help Needed, Wanted and Asked For," St. Cloud Cooper, the society's new president, of Fort Smith.

The responses to the toasts blended most happily practical suggestions and medical progress with wit and humor, so that the thirty-eighth annual meeting closed with the finest feeling of good fellowship and *camaraderie*.

PRESIDENT YOUNG'S ANNUAL ADDRESS.

Every physician in Arkansas should read every word of Dr. Young's annual address, read at the El Dorado meeting. It is one of the best among the many good ones with which the Arkansas Medical Society has been favored. Here is no striving for effect, no more high-sounding phrases to thunder in the index, no attempt at word painting, but it fairly bristles with practical good sense and valuable suggestions. There is not a thought that is not prompted by an earnest desire for the betterment of conditions inside and outside the profession. Where blame attaches, Dr. Young plainly says so; where evil exists, he points the remedy; where good has been accomplished and praise is due, he gives it.

Dr. Young points to the high standard set by the University of Arkansas Medical Department, and urges the co-operation of the physicians of the state and a liberal appropriation by the legislature, without which this high standard cannot be maintained.

In regard to the work of the State Board of Health, Dr. Young refers to the serious handicap of scarcity of funds and lack of co-operation by physicians. As to lack of funds, the legislature is to blame for a false economy, probably based largely upon failure to appreciate actual conditions and ignorance of the efficacy of properly applied health and sanitary laws in the prevention of disease. The lack of co-operation by physicians is at once deplorable and inexcusable. Even the vital statistics are rendered largely valueless by failure to report births and deaths, and diseases are spread because of the negligence of physicians in notifying the authorities of cases of communicable diseases where the house should be posted and later disinfected. This will, perhaps, continue until there shall be strict law enforcement with proper penalties for violation.

In regard to pellagra and the work of the Pellagra Commission, Dr. Young asks the co-operation of the profession generally. The importance of this work cannot be overestimated. Little has yet been learned of its etiology and epidemiology, but of its great and increasing prevalence we are all painfully aware.

Dr. Young calls attention to the prevalence of malaria and as proof that it can be eliminated cites the Panama Canal zone since it has been under United States control.

The health car instituted by Dr. Bradford of the Hookworm Commission is, of course, endorsed, and the plan of its permanency urged. The raising of the mere trifle of \$100.00 by each county should be an easy matter if once the people are properly impressed with the importance of the educational value of this object lesson in health preservation.

In light vein Dr. Young refers to the "Doctor in Politics," affording a theme for the ideal jest. He takes the proper position that if politics is rotten, it is the duty of the doctor, as well as every other good citizen, to get into politics and purify it. In this he minces no words, for he says flatly that the doctor who holds aloof as being too good to be in politics is "not a good citizen, not a good doctor, and he is not worthy of a respectable constituency." This is the right sort of "straight-from-the-shoulder talk."

Speaking of politics, Dr. Young aptly refutes the criticism that medical societies exist largely to be used for the self-advancement of some doctor or clique of doctors. This sort of foolish criticism comes usually from outsiders, but its falsity is shown by the achievements of every medical society that exists today.

Of the evils of fec-splitting Dr. Young speaks in no uncertain terms. He regards it as a disgrace to the profession, and as a remedy he recommends publicity, expulsion from the society, and a law making this nefarious practice a felony.

We have briefly commented on some of the salient features of Dr. Young's excellent document in the hope that everyone who missed hearing it at El Dorado will carefully read it.

A YEAR'S PROGRESS.

Secretary Meriwether's report made at the El Dorado meeting is most gratifying as showing a larger membership and better financial condition than ever before in the history of

the society. Physicians all over the state are seeing the importance of organization so that the list of members now includes a large majority of the eligible physicians of the state. The report shows further that the county societies, some of which have been inactive, have become awakened to the value and necessity of county organization and much better reports are being received from them as to monthly attendance and interest taken in the meetings. With the experience of trained officers and the co-operation of the newly organized association of county secretaries the outlook is for a great and prosperous year for the Arkansas Medical Society. This will depend on every member doing his part. The county society is one of the most important factors in building up the State Society. Make it a point to attend every meeting; get new eligible members; do not shirk in helping to prepare papers to make attractive programs; make the meetings so good that no physician in your county can afford to ignore them.

We want to again impress upon secretaries of county societies that the columns of The Journal are always open for the reports of meetings and also open to every physician for a full expression of opinion on any subject of interest to the profession.

The Journal has tried to keep fully abreast of the times, and we hope during the coming year to keep on making it better; to keep the profession in touch with the very latest thought and development in the field of medicine and public health movement.

We are especially proud of the favorable comment by the retiring president in his annual address and by the chairman of the council in his annual report as to the efficiency of The Journal. We appreciate the honor of being continued as editor of The Journal and shall continue as in the past to give our readers the very best there is in us.

Personals and News Items.

Dr. R. D. Miller of Eudora has moved to McGehee.

Dr. J. E. Jones has moved from Erin to Sheridan.

Dr. and Mrs. C. R. Shinault and their daughter, Josephine, have returned to Biloxi, Miss.

Dr. Milton Vaughan of Little Rock has been appointed city health officer to succeed Dr. O. K. Judd, who recently resigned.

Drs. Robert Caldwell, Morgan Smith and William Bathurst of Little Rock are attending the meeting of the American Medical Association at Atlantic City.

Miss Della J. Purifoy, assistant secretary of The Southern Medical Journal, attended the recent meeting of the State Society at El Dorado. She visited Little Rock and Hot Springs before returning to her home in Mobile.

Dr. James Parker of DeVall's Bluff spent a few days in Little Rock this month.

Dr. Vernon MacCammon of Arkansas City recently spent a day in Little Rock.

Dr. and Mrs. J. H. Buckley of Fort Smith left June 4 for Europe, where the doctor will take a post-graduate course at the Royal Ophthalmic Hospital in London. After attending the Clinical Congress of Surgeons there, Dr. Buckley will visit the eye, ear, nose and throat clinics on the continent.

To County Secretaries: You are hereby respectfully asked to notify those members of your society who are entitled to The Journal to write direct to Dr. C. P. Meriwether, secretary, Little Rock, if for any reason it is not received or if any numbers are missing. Duplicate copies will be supplied if requests for the same are sent in promptly. Any physician who is entitled to The Journal and does not receive it has no one to blame but himself if he fails to notify the state secretary concerning the matter.

THE ALUMNI BANQUETS.

The Arkansas Tulane alumni held its annual banquet on May 20 at the Garrett Hotel during the El Dorado meeting. It inaugurated a most important movement by appointing a committee consisting of J. M. Proctor, R. A. Hilton and A. H. Cook to present to the next legislature a bill to create a state hospital to be located in Little Rock to be under the control of the Medical Department of the University of Arkansas.

In the absence of C. R. Shinault, president, the vice president, F. O. Mahoney, presided at the banquet, with J. P. Runyan as toastmaster. The principal speakers were A. U. Williams, F. B. Young, R. A. Hilton and Earle Hunt.

The officers elected for the ensuing year were: President, George W. Murphy, Strong; vice president, J. S. Mitchell, El Dorado; secretary and treasurer, Earle Hunt, Clarksville, re-elected.

The annual banquet of the University of Arkansas, Medical Department Alumni So-

ciety, was held at the Arcade Hotel, El Dorado, May 22, with about twenty members present, and at the banquet the society pledged itself to the support of the new State Charity Hospital movement inaugurated by the Tulane alumni.

T. M. Fly was re-elected president for the ensuing year, and W. M. Wear re-elected secretary and treasurer.

An account of the Tennessee alumni meeting will be given in the July issue.

DR. YOUNG HEADS THE HEALTH BOARD.

As already noted in the Journal, Dr. Morgan Smith resigned as health officer and also from the board, the resignation to take effect June 1. At the meeting of the State Board of Health on May 23, Dr. Morgan Smith's resignation was accepted and Dr. F. B. Young, president of the State Board of Health, was elected to take his place. Dr. Morgan Smith resigned because of press of private business, which forbade his giving the attention to the duties of the office which it required. The board, in parting with Dr. Smith, commended his work most highly.

Dr. W. F. Smith, division surgeon of the Missouri Pacific-Iron Mountain Railroad at Little Rock, was appointed by Governor Hays to succeed Dr. Morgan Smith. Dr. J. T. Clegg of Siloam Springs was appointed to succeed Dr. F. B. Young.

It is unnecessary to speak of the qualifications of Dr. F. B. Young for the position as state health officer. He has served the board faithfully as president and there is no question but that as chief health officer of the state he will see that the health and sanitary laws are observed.

All the members of the board were present as follows: First District, B. A. Fletcher, Augusta; Second District, G. A. Warren, Black Rock; Third District, J. T. Clegg, Siloam Springs; Fourth District, W. P. Parks, Mena; Fifth District, W. F. Smith, Little Rock; Sixth District, S. A. Southall, Lonoke; Seventh District, L. A. Buekner, Dermott.

Letters to the Editor.

William R. Bathurst, Editor, Journal of the Arkansas Medical Society, Little Rock, Ark.:

Dear Dr. Bathurst—The Council on Health and Public Instruction of the American Medical Association has established a Medico-Legal Bureau for the purpose of collecting, arrang-

ing and studying all of the available material bearing on medico-legal questions of interest to physicians, or relating to public health matters. This bureau is in charge of Mr. John D. Hubbard, a graduate of the Northwestern University School of Law. We desire to secure all available material bearing on medico-legal subjects, especially all pamphlets, bulletins, monographs, circulars, legislative bills, laws, reports or special articles on any medico-legal or public health topics. As rapidly as material can be secured and studied, we hope to furnish information to all those interested on any topic coming within the range of the bureau. We shall greatly appreciate it if you will kindly send us, at any time, any such material that may come into your hands. This will be properly classified, catalogued and preserved for use in answering inquiries on any medico-legal question. We hope to make this bureau of service to the officers and members of state associations, executive officers of state boards of health and medical examining boards and any others interested. Any assistance or contributions will be appreciated and of great assistance in carrying out the plans of the bureau.

With cordial thanks for your many courtesies in the past, and hoping that we may, through this bureau, be of some assistance to you in the future, we remain,

Very truly yours,

FREDERICK R. GREEN, Secretary,
Council on Health and Public Instruction.

Abstracts.

THE PHENOLSULPHONEPHTHALEIN TEST.

F. B. Block, Philadelphia (Journal A. M. A., April 25), says that the phenolsulphonaphthalein test is now recognized as superior to any other test for kidney function and can be relied on when the other laboratory tests might fail. He reports a case illustrating this fact. He also reports the results of the use of the test in about twenty cases admitted to the gynecologic ward of the University Hospital which had been sent in as good surgical risks and offers the following tentative conclusions: "Although this series is entirely too small to serve as a basis for any definite conclusions, nevertheless, as far as it has gone, it seems to indicate the following: 1. The effect of ether anesthesia on healthy kidneys is practically nil so far

as reducing the excretory power of these organs is concerned. 2. Traces of albumin in the urine before operation should not give much concern, but clouds of albumin accompanied by casts should be considered seriously before the performance of elective operations. 3. The duration of anesthesia in any given case does not in itself signify the amount of injury which the kidneys will sustain. 4. The position of the patient on the table, the character of the operation and the administration of proctoclysis have not shown any effect of the percentage of phenolsulphonaphthalein excretion after as compared with that before operation. 5. In one-third of the cases there is an increased excretion after operation."

CONSTRICTIONS OF THE DUODENUM.

M. L. Harris, Chicago (Journal A. M. A., April 18), calls attention to a hitherto undescribed condition giving rise to characteristic symptoms. Constrictions of the duodenum due to cicatrices, inflammatory adhesions, etc., are of course well known and in the first case here described it was thought to be of inflammatory origin, but subsequent study of the other cases in which Harris operated has made it clear to him that the condition is due to the abnormal remains of a normal embryonic structure. Five patients have been operated on by him, all showing similar symptoms and giving similar findings at the operation. In all there was disturbance of digestion, shown in distress in the epigastric region coming on several hours after taking food and relieved by eating. Nausea was mentioned, but vomiting seldom occurred. In all cases there was some degree of tenderness in the epigastric region. The condition was a chronic one, dating in some from early life, and, while intermittent in its early history, became later practically continuous. Hyperchlorhydria was present whenever sought, and very marked in one case. No occult blood occurred in the stools. The symptoms strongly suggest duodenal ulcer, but no gastric or duodenal ulcer was discovered, and in two cases gall-stone was suggested. Whether it will be possible to differentiate these duodenal constrictions by the clinical history will have to be settled by further experience, but an analysis seems to Harris to show that there is an absence of the marked intermissions and the bad relapses characteristic of ulcer. The use of the

Roentgen ray with the bismuth meal is a valuable aid to diagnosis. Operations in all cases showed that the constricting fold was of peritoneum and not of the wall of the duodenum, and Harris looks to embryology for an explanation of its origin. It is due, he thinks, to the persistence of the caudal edge of the mesogastrium as a distinct fold extending across the ventral surface of the duodenum at the hepatic flexure which has been already described by others as the hepaticocolic ligament. The paper concludes with an account of a sixth operation, performed since the account of the others was written, which showed a remarkable constriction of the duodenum, but is too recent to report results as regards relief. The article is illustrated.

MALARIA.

G. E. Henson, Jacksonville, Fla. (Journal A. M. A., May 2), says that the prophylaxis of malaria has been sadly neglected in certain regions and that literature teems with articles on the eradication of the mosquito, while comparatively little has been said about man giving malaria to the mosquito. If the extinction of malaria by destruction of mosquitoes in our Southern states depends on the development and drainage of the land, it is necessarily a matter of years, and he asks, Why should we not attempt to solve the problem also by other means? Henson goes at length into the transmission of malaria by the mosquito and he thinks the success of a campaign against human malaria is certain, if properly carried out. It depends entirely, he says, on the education of the medical profession and the laity in certain fundamental principles concerning the detection of gamete-carriers, the formation of gametes in the human circulation, their transfer from one host to another, and the evolution of the parasite in man and mosquito, and lastly the significance of an early diagnosis and the rational treatment of all the malarial infections. He is not so optimistic as to assert that the detection of all gamete-carriers can be done in a single season, but there is little doubt that in the majority of cases the malaria is a local infection, which has been shown by the success in some places where this method has been tried. With the facts established that the sexual forms originate in the asexual cycle, do not appear until the asexual has been active for some days and that proper treat-

ment instituted early not only cures the disease, but also prevents the formation of gametes, the responsibility of the physician in making early diagnosis and giving prompt treatment is evident. Henson also emphasizes the fact that in practically every instance, quinin properly administered will cure the disease, and that it might fail in rare cases is no argument against its great value. Apparent cases of relapse during quinin treatment have been found by Ross and Thompson to be largely due to other causes than malaria, and there are exceptional instances of a specially resistant form of the parasite; but when quinin seems to fail, it is best to question the diagnosis first rather than promptly to discredit the drug.

INFLAMMATION OF THE GALL-BLADDER.

The importance and time of surgery in inflammation of the gall-bladder is emphasized by J. Tyson, Philadelphia (Journal A. M. A., April 25), who reports three cases of cancer following this condition. The fulminating form often terminates in abscess, and, if unrecognized, may terminate in perforation. Next to the typhoid bacillus the colon bacillus is a frequent cause. A result appreciated only recently is adhesions, now recognized as a frequent cause of pain in the right upper abdominal quadrant, formerly unrecognized. Other predisposing causes are: sedentary habits, lack of exercise, tight lacing, child-bearing and abdominal tumors, which contribute to explain the four times greater frequency of the condition in women. The most important consequence on account of its frequency is gall-stones, and the relation of these to cancer is now recognized; hence the necessity of prompt operation. Other results of neglected cholelithiasis are hardly less serious, such as abscess of liver and biliary fistulas into various organs, including the veins, the intestine, the stomach, the bronchi and the external integument. Atrophy of the gall-bladder is not infrequent. Tyson believes that in doubtful cases exploratory operation is sometimes justified, the more so since other conditions may be discovered which would also require operative relief. He does not deny that cancer may precede gall-bladder inflammation, but there is as much reason to believe that they were consequences in the cases reported.

DYSMENORRHEA.

Clelia Duel Mosher, Stanford University, California (Journal A. M. A., April 25), says that menstruation should be studied just as are the other functions, and, when normal, should cause no pain or disability. The functional dysmenorrhea observed is, she says, congestive in type and produced by: (1) the upright position (Moscatti); (2) alteration of the normal type of respiration by disuse of the diaphragm and of the abdominal muscles; (3) the lack of general muscular development; (4) inactivity during the menstrual period; (5) psychic influences. Each of these causes is discussed. She shows how the upright position with the valveless vena cava causes uterine congestion which tends to become exaggerated when the abdominal muscles are lax, when costal breathing is employed, and by clothing, etc., which interferes with the action of the respiratory muscles. Mosher has corrected these conditions in many cases by the following method: "All tight clothing having been removed, the woman is placed on her back, on a level surface, in the horizontal position. The knees are flexed and the arms placed at the sides to secure relaxation of the abdominal muscles. One hand is allowed to rest on the abdominal wall without exerting any pressure to serve as an indicator of the amount of movement. The woman is then directed to see how high she can raise the hand by lifting the abdominal wall; then to see how far the hand will be lowered by the voluntary contraction of the abdominal muscles, the importance of this contraction being especially emphasized. This exercise is repeated ten times, night and morning, in a well-ventilated room, preferably while she is still in bed in her night clothing. She is cautioned to avoid jerky movements and to strive for a smooth, rhythmic raising and lowering of the abdominal wall." The results have been that the pain has been lessened in many cases and wholly removed in a large number. The desirability of more activity is noticed in one of the cases reported; but she cautions against excess, especially in the athletics of college training. A hopeful mental condition is important, and it is unfortunate that pain or disability is so commonly expected. The definition of menstruation should be restated more accurately as Nature's effort to relieve the undue congestion of the uterus by the causes above mentioned. Mosher's opinion does not represent a supplemental wave of nutrition (Ja-

cobi), but rather a waste of potential energy in the form of blood which might be used in productive work when not required for the development of the embryo. Under normal conditions there should be no more women suffering from disorders of the generative organs than from disturbances of digestion, respiration or of the heart. At present, she says, all the evidence points to the menstrual hemorrhage as a secondary matter more or less fixed by the upright position, and it is unnecessary that it should be of long duration or large in amount.

THE HYPOPHOSPHITE FALLACY.—The hypophosphites were introduced by Dr. Churchill as a specific remedy for consumption, on the theory, since proven incorrect, that phthisis was due to a lack of oxygen in the tissues. On the supposition that hypophosphites were oxidized in the body, he presumed them to be a source of energy for the nervous system. Not only does the evidence indicate that in consumption there is an increase of oxidation, but there is no evidence that phosphorous acts as an energizer of oxidation, and further, there is no proof that the hypophosphites enter into general metabolism. Not only is there no evidence of the utility of hypophosphites, but it has long ago been demonstrated that they are excreted unchanged. While the discredited hypophosphite theory is no longer contained in text-books, the fallacy is kept alive by proprietary interests, and physicians who depend for their therapeutics on the "literature" of proprietary concerns still employ the hypophosphites (Journal A. M. A., April 25, 1914, p. 1346).

DUKET'S CONSUMPTION CURE.—The backers of the Chicago exploitation of the Duket consumption "cure" now admit that the treatment is without merit, that it is vastly inferior to approved systems of treatment of pulmonary tuberculosis, and that the treatment may lead to albuminuria. While the "cure" was given wide publicity through the newspapers, the public has not been informed of the unfavorable findings (Journal A. M. A., April 25, 1914, p. 1347).

RADIOACTIVE WATERS.—Waters whose radioactivity is due, not to radium itself, but to radium emanations, will quickly lose their activity. As most radioactive waters do owe their activity to radium emanations, they must be used at the springs (Journal A. M. A., April 25, 1914, p. 1348).

PROCEEDINGS

OF THE

Thirty-eighth Annual Session of the Arkansas Medical Society

EL DORADO, MAY 19-22, 1914.

HOUSE OF DELEGATES.

FIRST DAY.

The House of Delegates was called to order on Tuesday, May 19, 1914, at 3 o'clock p. m. by the president, Dr. Young.

Invocation by Rev. Vantrease:

O Lord, our Heavenly Father, we thank Thee for this day, and for this great gathering. We desire to recognize Thee in all things, realizing that Thou art the Head of all. We pray that Thy blessings may rest upon this body of men, and may each of them realize the responsibilities resting upon them as leaders of this great work in this great state of ours. Bless the president and all that shall gather here, and may this gathering be the means of inspiring every man that shall attend to a higher life and to a deeper insight into their profession. Guide them in their deliberations and all the work that they shall follow. We ask this for Christ's sake. Amen.

Address of welcome by Dr. S. J. McGraw, president of the Union County Medical Society:

Gentlemen of the Arkansas Medical Society:

For and in behalf of the Union County Medical Society, it gives me great pleasure to bid you welcome to this good town of El Dorado, where the next few days you may lay aside your cares and anxieties and enjoy the sweet communion which this gathering will afford.

One year ago we met under the bright lights of the Marion Hotel in the capital city; and a great meeting it was. Be it said to the honor of the Pulaski County Medical Society, we were royally entertained and had the pleasure of listening to an excellent program; and, from that day to this, we have been looking forward to the day when the tried and true of the profession would again gather themselves together in the annual homecoming, where they may take on a fresh supply of enthusiasm, renew their energies and strengthen their spirits so that they may the better fight their battles for another year.

The life of a doctor is somewhat monotonous; sometimes we run until we almost completely run down, and it is at these meetings that we acquire new ideas, new life, and get wound up for another year's run.

Gentlemen, the regular school of medicine which you represent has no apology to offer for its existence; it needs none. Every valuable discovery that has ever been made in medicine, a regular has either discovered it or developed it after it was discovered. Every scientific fact concerning our art, the regulars have worked it out. They have done everything that has ever been done toward placing medicine upon a sound and scientific basis.

We have conquered smallpox; we have conquered yellow fever; we have all but conquered typhoid fever. We possess an effective remedy for diphtheria, cholera and bubonic plague, which has each at different times decimated great sections of country; if we have not learned to treat successfully, we have learned the better part, their cause and how to prevent them. And even our old, time-honored enemy, malaria, which has afflicted mankind through the ages back into the remote past to where authentic history ceases, and which was perhaps the greatest factor in the undermining and destruction of both the Grecian and Roman empires, we have possessed a specific remedy for many years, and within the memory of every man in the house we discovered the cause, the malarial plasmodium, how it is communicated to man and how it may easily be prevented.

History records no greater discovery than this one, when men with their microscopes dug down into the bowels of the mosquito and brought to life the secret of malaria. It was the discovery of this fact that made possible the building of the great canal.

We have all read of Columbus and his discovery of America, and we have but a faint conception of the tremendous magnitude of that discovery. But what of Robert Koch, who discovered the tubercle bacillus, and by that discovery paved the way to all that has been done and all that may yet be done toward stamping out that arch enemy of mankind which has taken away more of its members than all of its wars.

What of the discovery of the bacillus pestis, and its transmission to man by the rat flea? Who can estimate

the magnitude of these discoveries in their ultimate relation to humanity? To my mind these discoveries are greater benefactors than conquering heroes, for the world has never needed many conquerors. It needed Cyrus to destroy Babylon and liberate the Jews; it needed Caesar to teach the nations a lesson in systematic government; it needed Washington to establish liberty and religious freedom on the western continent. But, perhaps in the majority of instances humanity has shed its blood in vain.

Gentlemen of the Arkansas Medical Society, I have recited to you a few of the things the doctors have done, but not all. You have contributed your part toward building up our modern civilization; you have contributed your part toward making its laws and sustaining its institutions; you have done more for charity than all the churches, all the Epworth Leagues, all the Y. M. C. A.'s, and have made no noise about it.

Therefore, I say to you, gentlemen, be not ashamed of your calling; be of good cheer. The profession you represent has a history; you have done something for the world. And, in conclusion, I again bid you welcome, welcome, thrice welcome to our homes and to our hearts.

President: I appoint as the Credentials Committee J. G. Eberle, E. F. Ellis and A. M. Zell.

A recess of ten minutes was here taken for the Credentials Committee to investigate the credentials of delegates and make their report, after which the House of Delegates was called to order.

Dr. Eberle: Your Committee on Credentials report that they have examined the list in the hands of the secretary and find that the members so designated are entitled to represent their counties at this meeting. We find also that there are some counties whose delegates are not here, but there are men from the county societies who are present, and we recommend that the rule be followed by seating them until the arrival of their delegates, which may be later.

Dr. Snodgrass: I second the motion.

Carried.

The secretary here called the roll, and a quorum was found to be present.

President: Dr. Gibson calls my attention to Section 6, Chapter VII, of the constitution, which provides as follows:

"In case of a vacancy in the office of delegate, the council shall have the authority to seat any member of that county society in attendance at the said meeting as delegate with full right to perform all the duties of that office."

I will ask the council to meet and approve or disapprove of the nominations made by the House of Delegates as suits their wisdom immediately, and we will have a recess of not exceeding eight minutes.

The council here met to pass upon the nominations of members from the counties in which no delegate answered to the roll call to represent said absent delegates, after which the house was called to order.

Dr. Snodgrass: The report of the council is that the members be seated from the counties that have not reported delegates or alternates present. That gives us a quorum so that we can proceed with business.

The report was adopted.

The reading of the minutes of the previous meeting being in order, the secretary stated: "The minutes have been published in The Journal, but if you want them read I will read them."

Dr. Cooper: I move that we dispense with the reading of the minutes.

Seconded. Carried.

President: On the Reference Committee I appoint J. B. Roe, E. L. Watson and J. C. Hughes.

On the Committee on Constitution and Resolutions I appoint L. P. Gibson, G. A. Hebert and J. C. Wallis.

Dr. Moore, vice president, here took the chair, while Dr. Young read his address to the House of Delegates.

It is unnecessary for me to express to you gentlemen the appreciation I feel for the honor conferred upon me when you elected me to this office. I have attempted in every way to discharge the duties of the office in such a way as to be for the best interests of the whole of the medical organization throughout the state, and any mistakes I may have made, I wish to assure you, were from poor judgment and not from lack of good intention. I desire now to call your attention to some matters that I deem of importance.

It is my opinion that the time is now ripe for another effort to grant undergraduates membership, and I would like to see a resolution to that effect introduced before this House of Delegates. I will go more fully into this and some other matters that I mention today in my annual address tomorrow.

After quite a correspondence and considerable investigation I think the time is now here for us to attempt to secure one Board of State Medical Examiners in the place of the three boards we are now working with. I believe that there will be but little opposition to this now.

The tuberculosis sanatorium has done a mighty work for the state, and it is my opinion that our incoming Legislative Committee should be instructed to use every method to secure for it a most liberal appropriation. This institution is the child of organized medicine in this state and we should promote its good in every way.

The State Board of Health has accomplished a great deal during its short existence and against many odds. Its forces are now organized in all but a few counties, with an active county health officer and a full corps of registrars and other officials. The printing for some time in advance had been done and a competent office force well organized. I hope your Legislative Committee will be instructed to make the attempt to secure sufficient funds to forward this good work.

The Medical Department of the University of Arkansas owes its present condition to the work of this society as accomplished through your Committee on Consolidation of Medical Colleges some years ago. It is therefore up to us to sustain the college in its desperate attempt to keep well up in the line of advanced medical education. I would advise that this society appoint a committee to attempt to interest some of our wealthy citizens in securing an endowment for the school, as well as direct the Legislative Committee to try to secure a liberal appropriation from the legislature. In this connection I may state that it is probable that a feasible method of establishing a State General Charity Hospital has been worked out, this institution to be run in connection with the medical college and under its direction. I hope this organization will endorse this plan.

It seems that the condition of medical organization throughout the state is wholly satisfactory. Most of the counties have active and well-working societies and harmony seems to reign. The Journal of the Arkansas Medical Society has attained a most advanced degree of excellence and should be supported by the organization in every way possible. The State Board of Health has approved the establishment of a health car as first suggested by Dr. Bradford of the Hookworm Commission and I hope this body will give to this movement its official endorsement. I hope that my administration has left the society in at least as good condition as I found it, and again thanking you and assuring you that you will always find me ready to serve the society in any way possible, I will in a short time again retire to the ranks.

Dr. Moore: You have heard the president's address. I hope you will consider seriously the suggestions contained therein. The paper is now the property of the House of Delegates. A motion is in order to refer it to a committee.

Dr. Eberle: I move that it be referred to the Reference Committee.

Seconded. Carried.

President: The report of the Committee on Scientific Program is now in order.

Dr. Bathurst: Dr. Meriwether, secretary of the society, acting with the Committee on Scientific Program, has prepared and issued the official program, a copy of which will be given to each member as he registers. In our efforts to determine the character and scope of the scientific proceedings, we are especially grateful to the section officers who have so industriously gathered together the material for

this session, and we hope that the profit and pleasure of the meeting will be enhanced by a free discussion of the papers.

President: Without objection the report will be referred to the Reference Committee. The next in order is the report of the Committee on State Legislation and Public Policy, Dr. Dorr.

Gentlemen—Your Legislative Committee beg to make the following report, to-wit:

We met at the Elk's home of this city on the 18th p. m., and after due discussion we wish to present the following recommendations, and urge that the succeeding Legislative Committee present them to the next legislature in the form of bills for consideration by that body and get them enacted into laws if possible.

First. We recommend that the present law creating a Board of Examiners be changed, and each school be given due recognition on board as now recognized by the laws of the State of Arkansas in proportion to the number of persons they have now practicing medicine in the state, and all laws be repealed in conflict of this recommendation.

Second. We recommend that the next Legislative Committee make an effort to have a law enacted making it a felony for all parties connected with fee splitting.

Third. We recommend that the confirmatory power now invested in the county judge of county health officers be cancelled, and further that the Legislative Committee use all power within their control, that you have liberal appropriations for the State Board of Health.

Fourth. We recommend that the Legislative Committee urge a liberal appropriation for the further improvement of the State Tubercular Sanatorium and the medical college and institute a school of pharmacy in connection with the medical college.

We specially urge the Legislative Committee to watch and defeat all legislation proposed from any source detrimental to the people.

R. C. DORR, Chairman,
R. A. HILTON, Secretary.

President: Without objection it will be referred to the Reference Committee. The next in order is the report of the Committee on Trained Nurses, read by Dr. Cooper in the absence of Dr. Sheppard.

We, your committee, have investigated as thoroughly as possible the different training schools in the state, and desire to submit the following report:

We find in Little Rock ten training schools for nurses, all giving a course consisting of eleven to twelve branches, namely, practical, surgical and obstetrical nursing, hygiene, contagion, materia medica, anatomy, physiology, gynecology, care and feeding of children, urinary analysis, dietetics and cooking, covering a period of two years. From time to time these classes are required to stand an examination in each branch, until such time as the faculty deems them competent to be given a diploma.

In requirements for admission will state that the age limit is eighteen years, must have as good as eighth grade certificate or its equivalent, must give satisfactory references as to their character and health, and also stand satisfactory entrance examination.

When filled to capacity, Pulaski County Hospital requires nine nurses; Little Rock City Hospital, six nurses; St. Vincent's, forty-eight; State Hospital for Nervous Diseases, fourteen nurses; Little Rock Sanitarium, eighteen nurses.

Snodgrass Hospital, Little Rock, has sixty beds, twelve nurses, regular course of lectures, course of study twenty-six months. Examination semiannually. Requirements for admission, eighth grade, single, good moral character. The course of study same as that of other institutions in the state.

Fayetteville City Hospital has thirty beds, six courses in training, course of study twenty-six months. Course of study same as required by law governing training schools for nurses. Requirements, single, good moral character, eighth grade or better. Examination semiannually.

Crossett Hospital Training School for Nurses, Crossett. Observe all requirements of state law. Has one pupil nurse.

Florence Sanitarium Training School for Nurses, Pine Bluff, has five nurses; requires two years in training; age, eighteen to thirty; single. Educational requirements, eighth grade. All regular branches taught as required by law, including obstetrics and operating room training.

Texarkana has two hospitals, the St. Louis Southwestern or Cotton Belt Railroad Hospital, in which they employ graduate nurses only; the record does not show the number they employ. Also the Dale Sanitarium, in which there are eight pupil nurses; their age limit is from twenty to thirty; entrance requirements same as that of other hospitals. They are required to stand one examination each year, given by the staff of lecturers. Their course of study is the same as that of other hospitals mentioned, each nurse being required to attend two lectures per week.

In Fort Smith we find two hospitals, namely, Sparks Memorial Hospital and St. Edwards Infirmary. Number of pupils in the Sparks Memorial are fifteen, and entrance age limit from nineteen to thirty years of age. Other requirements of admission, eighth grade or common school education, statement testifying to good moral character, certificate certifying sound health, and unimpaired faculties. Average height and weight and must be strong physically. Required to stand examination at completion of each branch. Course of study same as in other hospitals.

St. Edwards has seven pupil nurses in training; age limit, nineteen. Requirements for admission, must be single, of good moral character, possess a common school education, must be strong and healthy and not under nineteen years of age; are required to stand examination once a year; curriculum same as that of other hospitals.

In Pine Bluff we find one hospital reported, name, Davis Hospital, in which there are fourteen pupil nurses; entrance age, nineteen; entrance requirements, good health and morals, and education equivalent to eighth grade; pupils required to stand examination once a year; course of study same as other hospitals.

Paragould has one hospital called the Paragould Sanitarium, in which there are seven pupil nurses; age requirements, nineteen to thirty-six; requirement for admission, common school education, plus one year in high school, with health and good morals; pupils examined semi-annually; course of study same as other hospitals.

In Hot Springs we find one hospital reported, name, St. Joseph's Infirmary, in which there are nine pupil nurses; age limit, eighteen to thirty-five; requirements for admission, references required as to character, etc., application blanks filled out satisfactorily; good common school education and good health; required to stand examinations semi-annually; curriculum same as other hospitals.

In Helena we find the Helena Hospital reported, in which there are five pupil nurses; age limit, thirty years; requirements for admission, good moral character, high school education, certificate of health, recommendation from two friends, not relatives; required to stand examination at the close of last course; course of study same as that of other hospitals.

We beg to state that there are two hospitals in Texarkana, from which we have been unable, up to now, to obtain any information. We would report further that the state board for examining graduate nurses has registered 372 nurses, most of whom are in the state, all being graduates of reputable institutions, and apparently of good moral character; all doing good work at an average charge of \$25.00 per week. They have organized a State Association, to which the majority belong, and in which they are doing a splendid work. We also find that Pulaski County's nurses have formed themselves into an association, holding meetings once a month.

Respectfully submitted,

J. P. SHEPPARD, Chairman.

President: Without objection it will be referred to the Reference Committee.

Dr. Snodgrass: I would like to state that we have not been informed that it is necessary for the training schools for nurses to report to this committee. I never had any notification to that effect. I myself am conducting a hospital in Little Rock, and have twelve nurses in the training school, and have complied with all the rules and regulations required by the state law passed by the Arkansas legislature, and we are doing our very best. We have a faculty composed of twelve of the best physicians that we have been able to get to agree to do their duty in connection with this hospital, and we have an entrance requirement of an eighth grade certificate from the common schools in Arkansas, and require twenty-six months in training before the girls are allowed to graduate, and our hospital is chartered under the common schools of Arkansas.

President: I have heard Dr. Snodgrass' statement, and his point is well taken. I would suggest and rule that, if there is no objection, Dr. Snodgrass take his point of contention up in a joint meeting of the Reference Committee and the Committee on Trained Nurses.

Dr. Cooper: I move that Dr. Snodgrass' statement be incorporated in this report. I didn't get up this report. If he will give me the data I will add that to it and that will settle the matter.

President: It is not necessary to move that. If you accept that, and incorporate it in your report, that will cover Dr. Snodgrass' statement.

Dr. Snodgrass: That is satisfactory.

President: If there is no objection the chair will so order. The next in order is the report of the Committee on Sanitation and Public Hygiene.

We, your committee, beg leave to report as follows:

There has been no legislative session of the law-makers since our first annual meeting, and consequently there have been no new laws passed relative to health matters. However, much publicity has taken place from many quarters, tending to make for PUBLIC HEALTH AND HYGIENE in the state. The state board has caused to be made in the following counties complete microscopical and sanitary surveys as to hookworm disease, to-wit: Woodruff, St. Francis, Lee, Phillips, Jackson, Jefferson, Pulaski, Dallas, Cleveland, Lonoke, Hempstead, Clark, Hot Spring, Conway, Ouachita, Faulkner, Ashley, with a partial review of Monroe, Arkansas and Little River counties.

Fifteen Arkansas Betterment Clubs have been organized in as many different places for the further spreading information as to the cure and prevention of disease.

The Arkansas Federated Women's Clubs have been instrumental in aiding local and state health boards and officers in many places in doing much publicity regarding sanitary measures and hygiene.

A movement looking to the building and equipping a HEALTH CAR for the State Board of Health, which is confidently expected to aid materially in encouraging the people of the state to look well to the care of their homes and public places.

The EDUCATIONAL DEPARTMENT of the state has written letters to the directors of the public schools of the state urging them to use every means in their power to inform the public of the requirements of the laws of the State Board of Health, and asking that sanitary privies be constructed at the various schoolhouses in their districts.

Altogether, never in the history of the state and organized medicine has there been as much activity shown as has been in the year just closing.

It is confidently hoped that before the lapse of another year that HEALTH officers will be acting with increasing vigor with regard to the prevention of such diseases as tuberculosis, typhoid fever, smallpox, malaria and hookworm disease, all clearly preventable in the light of the Twentieth Century.

Hotels, boarding houses, venders of fruits, vegetables and food supply places have been inspected in many places and it has been gratifying to find that persons engaged in these businesses have been almost uniformly ready to do as instructed by the state health authorities; people over the state have been, more than ever before, willing to go in partnership with the medical authorities in correcting irregularities in the matter of sanitation and perverted hygiene.

T. B. BRADFORD, Chairman.

President: Without objection it will be referred. The next in order is the report of the delegates to the 1913 meeting of the American Medical Association.

Dr. Williams: Not being a delegate, but only an alternate, and both delegates attending the last meeting of the A. M. A., I didn't go, so that I have no report to make, only hearsay from them, and they report a very enjoyable time.

President: The next in order is the report of the Committee on Arrangements.

Dr. Hilton: As you can observe, the Committee on Arrangements have arranged for the meeting place here, and the Garrett Hotel is headquarters. The other places necessary for the sections will be announced as we come to the sections. I ask the chairman to announce the fact that all doctors were expected to make the Elks' Home their place of leisure; lounges, cigars and nice, cool ice water will be furnished them. In the afternoon there will be music and at nights there will be given a dance ball or hop. Entertainment will be there every day for you, and you are expected to make that your headquarters when you have nothing else to do.

President: Without objection that will be referred. The next in order is the report of the chairman of the council, by Dr. Snodgrass.

Dr. Snodgrass: I have been unable to get the council together, and the reports have come in so few that I think it is better for us to have a meeting immediately after this session and report to the general session in the morning, and I would like to have all the members of the council to meet me immedi-

ately after the adjournment of this session so that we can get together and get our report in some concrete form so that we can report to the general session in the morning. I have no special report to make. I think the society has been in a very good condition in the past year, and everything seems to be progressing satisfactorily. I would rather wait until in the morning to make the report.

REPORT OF SECRETARY.

To the Members of the House of Delegates of the Arkansas Medical Society:

In complying with Chapter 6, Section 4, of the constitution and by-laws of this society, I beg to submit the following report for your consideration:

This society is now composed of sixty-four component county societies. Six county societies with a membership of forty-two at my last annual report have this year failed to make any report at all. Five county societies, Newton, Sharp, Scott, Stone and Van Buren, are still unorganized. Crawford County, which failed to make its report last year, has reorganized this year with a membership of fourteen. Four counties, which were organized by the state organizer, namely, Izard, Calhoun, Fulton and Marion, with a membership of twenty, and were received on the state organizer's receipt, have all failed to make a report for this year. Cleburne and St. Francis Counties, with a membership of twenty, have also failed to make their report. The total membership as per my last annual report was 1,013 (erroneously published, however, as 1,085). The total membership of this year is 1,105, with a total gain of ninety-two, shown by Councilor Districts as follows:

First District, gain of twenty.
Second District, while showing a loss of eighteen, made a total gain of two.
Third District, loss of ten.
Fourth District, loss of four.
Fifth District, loss of twenty-eight.
Sixth District, gain of thirteen.
Seventh District, gain of twenty-six.
Eighth District, gain of two.
Ninth District, loss of eight.
Tenth District, gain of thirty-seven, making a total gain for the year of fifty-five.

Owing to the change in the constitution and by-laws requiring county secretaries to make their report on January 1, or not later than March 1, has placed an unusual amount of work on your secretary, and has thoroughly convinced me that a very small per cent of the county secretaries read the proceedings of the annual meeting or pay very little attention to The Journal, for, had they read the editorials, they would have been thoroughly familiar with this new requirement. Not more than ten county secretaries made a complete report within the time as specified by the constitution and by-laws. But I believe that the new amendment will be for the best interest of both the state and county societies in the future.

The state secretaries of all the state societies met in Chicago in February, this year. The proposition of a universal transfer was again threshed out, but with no result, as it was impossible to come to any conclusion or agreement. It was recommended to the Board of Trustees of the American Medical Association that if this conference of state secretaries were to be held annually, that in the future they hold their meetings at the time and place of the annual meetings of the American Medical Association, and requesting that each state secretary get an endorsement from the House of Delegates of his society, requesting the state delegates to the American Medical Association to use their influence for this measure.

Received from county secretaries for dues and subscriptions to The Journal since last report, \$3,068.00; received from the editor of The Journal \$1,164.92, making a total income since last year of \$4,232.92. Cash on hand at last report and turned over to the treasurer, \$2,727.52; vouchers issued by me on the treasurer for the past fiscal year, \$2,690.39, leaving a balance in the hands of the treasurer of \$37.13, making a total amount in the possession of the secretary and treasurer of \$4,270.05. There are outstanding bills for publishing April and May Journal and the programs, which will leave us a nice balance to start the new year.

Respectfully submitted
C P. MERIWETHER, Secretary.

REPORT OF TREASURER.

REPORT OF THE TREASURER, ARKANSAS MEDICAL SOCIETY, MAY 26, 1913, TO MAY 19, 1914.

Receipts.

From secretary, balance on hand May 26, 1913....\$2,727.52

Disbursements.

1913—		
Voucher No. 332.	Wm. R. Bathurst.....	\$ 400.00
Voucher No. 333.	C. P. Meriwether.....	400.00
Voucher No. 334.	C. P. Meriwether.....	50.00
Voucher No. 335.	C. P. Meriwether.....	16.00
Voucher No. 336.	Wm. R. Bathurst.....	50.00
Voucher No. 337.	F. S. Overton.....	68.60
Voucher No. 338.	B. M. Stevenson.....	72.20
Voucher No. 339.	John S. Wood.....	5.00
Voucher No. 340.	Central Printing Co.....	130.25
Voucher No. 341.	T. B. Bradford.....	19.25
Voucher No. 342.	M. C. Hughey.....	73.00
Voucher No. 343.	R. A. Hilton.....	79.48
Voucher No. 344.	C. A. Archer.....	24.50
Voucher No. 345.	Little Rock Trust Co.....	1.50
Voucher No. 346.	Noel Loeb.....	64.70
Voucher No. 347.	W. A. Snodgrass.....	30.45
Voucher No. 348.	Central Printing Co.....	211.01
Voucher No. 349.	Southern Trust Co.....	7.50
Voucher No. 350.	Spott & Jefferson.....	25.00
Voucher No. 351.	Central Printing Co.....	153.88
Voucher No. 352.	L. C. Smith Typewriter Co.....	5.50
Voucher No. 353.	Central Printing Co.....	95.55
Voucher No. 354.	Central Printing Co.....	90.72
Voucher No. 355.	Central Printing Co.....	100.40
Voucher No. 356.	Central Printing Co.....	78.45
Voucher No. 357.	Central Printing Co.....	101.55
1914—		
Voucher No. 358.	Central Printing Co.....	95.80
Voucher No. 359.	Central Printing Co.....	94.05
Voucher No. 360.	Central Printing Co.....	146.05
Total		\$2,690.39
Cash balance		37.13
		\$2,727.52

Respectfully submitted,
WM. R. BATHURST, Treasurer.

President: Without objection I will refer these reports to the council.

Dr. Snodgrass: The council will make a full report in the morning.

Dr. McMullen: I would like to return to the head of trained nurses that the committee reported on. I would like to say that Dr. Jordan and myself are running a sanitarium in Pine Bluff with five nurses in training, four of whom are undergoing a two years' course, but the last one admitted will be required to take a three-year course, and the ones coming on in the future will be required to take the same. We meet all the requirements laid down by the state laws in the teaching of the girls, classes held every night and they are taught all the regular branches, and all the requirements which are laid down in the reports sent out recently are followed. So that I would like to have the name, Florence Sanitarium of Pine Bluff incorporated in the report which was made.

President: I will ask you to take it up with Dr. Cooper. It is not the intention to overlook anyone.

Dr. Sparks: The Crossett Hospital and Training School for Nurses has been accepted, but we have not received the charter yet. I suppose it has been received by this time. It was announced in the Gazette of last Sunday. We have a communication from the Educational Department last week. We have three nurses in training, one in the second year and two in the first, and we meet all the conditions required by the state laws.

Dr. Cooper: Let these gentlemen write out the data they have, and I will incorporate it in the report.

(The report was amended so as to include all data that was brought to the attention of Dr. Cooper respecting all training schools not mentioned originally in the report, and the report as appears herein is said amended report.)

President: The next in order is the report of the visitors to the Medical Department of the University of Arkansas, Dr. W. F. Smith.

REPORT OF BOARD OF VISITORS TO THE UNIVERSITY OF ARKANSAS, MEDICAL DEPARTMENT.

To the President and House of Delegates of the Arkansas Medical Society:

We, your committee, appointed a Board of Visitors to the Arkansas University, Medical Department, beg to state that on April 13, 1914, we visited and inspected the various branches of the Medical Department and beg to report as follows:

We found the various laboratories located in the old statehouse. The equipment, material and course of instruction were found to be satisfactory, and the requisite number of hours of instruction filled by the teachers in charge.

On visiting the college, where the didactic and much of the clinical teaching is done, a careful inspection of the records showed that a sufficient number of hours had been assigned to each branch, but that the teachers in charge of obstetrics and neurology have failed to be present and devote a sufficient amount of time for the proper teaching of their subjects, and we recommend that these teachers be more prompt in filling the hours assigned to them.

The outdoor clinics are well attended, a good course of instruction being given, and the case histories well kept. However, we find that there is insufficient equipment to properly care for many of these patients, as, for example, the Gynecological Department. The Logan H. Roots Memorial Hospital connected with the college is well kept and affords good clinical facilities. We find a weekly clinic held at the County Hospital and the State Hospital for Nervous Diseases. We find that there has been only one faculty meeting held during the year. We recommend more frequent meetings.

We wish to commend the strict enforcement of the entrance requirements. We would, however, recommend in addition to the standard four-year high school education, that the entrance requirements be raised to include one year of college work in physics, chemistry, biology and modern language, this requirement beginning not later than the opening of the session of 1915. Already sixteen state medical licensing boards have adopted preliminary requirements in advance of the four-year high school education, seven of which will affect all graduates of this year, two in 1915, one in 1916, one in 1917, three in 1918 and two in 1919. It is almost certain that many other state boards will adopt this higher requirement in the near future.

In the United States there are now fifty-two medical colleges whose entrance requirements include one or more years of college work, and twenty-five more will be put on this pre-medical year beginning with the session of this year. This includes very nearly all colleges generally recognized by the various state boards, and if our college maintains its present standing it is imperative that the pre-medical year be put on in the near future.

W. F. SMITH, Chairman,
W. S. STEWART,
M. C. HUGHEY.

President: In addition to that, I will ask Dr. Meriwether to read a communication from Dr. Stover.

Secretary: Dr. Stover was the representative of the Arkansas Medical Society to the recent meeting in Chicago of the Board of Education of the A. M. A.

Dr. Frank B. Young, President Arkansas Medical Society, El Dorado, Ark.:

Dear Doctor—In accordance with your appointment of February 1, I attended the meeting of the Association of American Medical Colleges at Chicago as the representative of the Arkansas Medical Society. The meeting was a pleasant and profitable one, a number of valuable addresses being made regarding the work of medical instruction, and upon the question of a hospital year before beginning practice. It was decided that it was not advisable to require at the present time a hospital year as a requirement before a diploma was issued, but many expressed themselves as in favor of it as soon as sufficient suitable internships can be provided.

No action was taken that was hostile to the interests of the Arkansas Medical Society or the Arkansas Medical School. In fact, in a conference with Dr. Caldwell after the meeting he expressed himself as well pleased with the progress our school has made, and advised that for the next session the school continue to admit students as at present, upon a four-year high school basis. Thereafter demand one year of college work devoted to chemistry,

biology, physics and a modern language as a preliminary to the four years in medicine.

This is in harmony with the action of our Board of Medical Examiners and of those of a number of the other states and will be met by the school.

Am grateful to you for the honor of the appointment, and assure you that it was a pleasure to serve in a cause in which I am so deeply interested—the cause of better medical schools.

Yours truly,

ARTHUR R. STOVER.

President: Without objection the report will be referred to the Reference Committee. The next in order is the selection of the Nominating Committee.

The secretary here calls off the counties comprising the various councilor districts, and requests the delegates present from said counties to segregate themselves for the purpose of selecting their representatives to act on said Nominating Committee.

Dr. L. Kirby: Are the members or only delegates entitled to select the Nominating Committee?

President: The chair will rule that every member of the State Medical Society present is entitled to partake of the caucus to select a Nominating Committee, but no one but a delegate can serve on that Nominating Committee. (Reading the law from Chapter V.) I still hold to my contention that the House of Delegates can call in—I will say that it is permissible, but not obligatory—or the delegates from each councilor district should call in those who are not delegates who are present from the councilor districts to advise with them about the selection of the delegate from their councilor district as a member of the Nominating Committee.

A recess of ten minutes was taken, after which the following names were given in as constituting the Nominating Committee:

First Councilor District—W. P. Hicks Earle.

Second Councilor District—J. B. Roe, Newark.

Third Councilor District—P. E. Johnson, Holly Grove.

Fourth Councilor District—H. T. Smith, McGehee.

Fifth Councilor District—G. W. Murphy, Strong.

Sixth Councilor District—Don Smith, Hope.

Seventh Councilor District—A. U. Williams, Hot Springs.

Eighth Councilor District—L. P. Gibson, Little Rock.

Ninth Councilor District—L. Kirby, Harrison.

Tenth Councilor District—J. G. Eberle, Fort Smith.

On motion, the House of Delegates adjourned subject to the call of the president.

GENERAL SESSION.

SECOND DAY.

The general session was called to order on Wednesday morning at 10 o'clock by Dr. Young, president, there being a quorum present.

Invocation by Rev. Thomas:

Almighty God, our Heavenly Father, we thank Thee for this beautiful morning, for the men we need, the men we honor, the saviors of our mortal bodies. We thank Thee for the light of advance which has come unto us today for a fuller knowledge that we have. For the science and the practice of medicine, we pray that these men may be faithful and honest and diligent. They who minister unto us of the laity, we pray Thee that Thou help us to understand their responsibility and their accountability. We ask this morning for the sympathy of the heart, head and hand. We thank Thee for their great mastery of their art, even as Thine own Son, great Teacher of men, ministering unto the needs of others in the great spirit, oftentimes, of charity. We pray that Thou givest unto them from us the word of gratitude expressed, O Thou, who has given us life, we pray Thee this morning that through Thy Holy Spirit Thou would help us to understand the great mission of the message of the physician. Blessed Lord of life, give unto them Thine own knowledge. We pray that there may be a closer relation, as the days come and go, between the patient and the doctor; may there be a larger and a stronger respect on the part of the patient, and may we appreciate the great medical profession. O Thou, who dost give unto us the light of knowledge, Thou who are the great Spirit

of all truth, give to each one of these doctors more and more of the truth which shall make them stronger in their faith, more earnest in their practice, and may the light of knowledge flood their souls. We pray for the great spirit of sympathy in the brotherhood. We pray that Thou wouldst help us to understand our interdependent relationship, and may the sense of personal responsibility ever be uppermost. O God, our Father, guide them today, bless them today, and may their fellowship be a fellowship like unto Him who has given to us the highest, the noblest and the truest type of human friendship. Remember those who are office-bearers; remember those who have specific duties. And may this be an hour and a day when knowledge shall be increased. Amen.

President: We shall now hear the address of welcome by Judge Neil C. Marsh, representative of the mayor:

Mr. Marsh:

Mr. President, Ladies and Gentlemen:

I wish that I could say something that would make you feel and appreciate just how glad we are to have you as our guests today. Welcome addresses are always expected, and, because they are expected, they seem to be more or less perfunctory. But I hope you will not measure the sincerity of our welcome by the merit of my remarks, for if you do you will form a very poor first impression of the hospitality of our city. I have been chosen as a substitute for our mayor to make this address, not because of any qualifications I possess as a speaker, but because both by reputation and profession I am extremely truthful. The Committee on Arrangements thought that a few remarks from me might be appreciated because of their novelty. We feel that it is a privilege to entertain you. We feel honored by your presence, and proud of the distinction of having been chosen as your host of this, your 1914 annual convention. We realize that the greatest work of modern Arkansas is being done by you. We realize that it is an honor and a privilege to entertain the representatives of that great body of men whose profession, work and study is the alleviation of human suffering, a profession that has taken the torch of science from every profession and with it is mounting to loftier heights and illuminating nobler and broader fields of human endeavor, and beckoning to others to follow. We realize that the greatest work of civilization has been accomplished and made possible through the efforts of the medical profession; that through your work and your efficiency, man has been able to add another and eighth wonder of the world, which surpasses all the other seven, because the wonders of the ancients were only monuments to the power of money, toil and effort, while this eighth has divided two continents, has united two seas, and along the pathway made by Balboa four hundred years ago as he climbed the heights and discovered a new ocean, you have seen the navies of the world laden with the commerce of all the nations. Every schoolboy and girl of America knows that but for the efficient work of the medical profession the Panama Canal would today be a dream to this nation, as it was a nightmare to the French. But, above the gloom of that tropical spot of pollution and death, you held the torch of science and lighted the way for the engineers to dig the big ditch through which the ships of commerce pass while two oceans meet to pay tribute to your worthy work.

We hope you will feel at home while you are with us. The freedom of the city is yours. We have no walls to climb, no gates to open, so that you need no keys to give you either the actual or the symbolical freedom of the city. Our people have no false pride, no selfish notions, no cold reservation and no money; therefore, they don't hesitate to take you into their homes and hearts. We hope you will feel just as much at home with us as you would with your most ideal patient. I am told that the most satisfactory patient from a doctor's standpoint is the man who will do anything the doctor says, and will take anything he gives him. We may not please you altogether about doing just all you want us to do, but if we don't we hope you will excuse us. I will assure you that I have never yet seen a man from El Dorado refuse anything. We all take something.

I hope your deliberations will be profitable and beneficial to you, for whatever benefits you benefits the laity. No profession has ever climbed to that exalted solitude where its benefits don't finally accrue to the great mass of humanity, and no profession should ever aspire to that eminent degree of loneliness. We feel perfectly safe while you are with us. In that respect we are somewhat different from a client of mine who was injured in a railroad wreck. I was endeavoring to impress upon the jury the extent of his injuries and to prove how long he was in a dangerous condition. He told the jury that Dr. Hilton waited on him for four weeks and visited him every day. The court admonished him that what I wanted to know and what the jury wanted to know was not how long he visited him, but just how long he was in danger. He said he regarded himself in danger just as long as the doctor visited him.

I hope you will take life easy while you are among us, and I trust that the only epidemic with which you will have to contend will be the epidemic of good will,

of good fellowship, the formation of fast friendships and professional pride in your work, and that you will all enjoy yourselves, and that you will think back on your visit to El Dorado, of some pleasant hour spent here, some friendship formed, some inspiration gathered, that it will form a bright spot in your regard, lending inspiration to the moment and cheer to the hour.

While you are here don't rush through with your work. Take your time, and remember that you are in a Southern city where leisure is a virtue and where haste is a doubtful quality, and viewed with a good deal of suspicion, especially by us old settlers. Take a rest; make yourselves a vacation. You may not need rest as much now as a patient of Dr. Mitchell's did. I hate to tell this on him, but, being truthful, I am bound to. When the doctor first came here he was called in by a young lady, who very volubly described to him all the symptoms of all the ills that flesh is heir to, and wound up by asking him what he thought was the matter, and what she could take. The doctor was more honest than scientific, and could not square her complaint on her complexion and her personal appearance or ample form. So he concluded there was nothing the matter with her, and gravely advised her that she just needed rest. "Oh, no, doctor," she said, "you must be mistaken. Look at my tongue." He looked at it and said, "That needs a rest, too." They tell me that she is the only young lady patient that the doctor has lost since he has been in El Dorado, and he enjoys a big practice.

Everybody takes an interest in your work. Your profession and your work touches everyone's life. It touches every industry and activity of man, and it's an important factor in the economical conditions of every civilized country on the globe. The old superstitions about diseases and their cure are fast fading from the minds of even the most ignorant. Even the children have made friends with the family doctor, and they no longer associate him with castor oil, lobelia, ipecac and blue mass pills, and the old folks don't any longer regard him as the necessary and close forerunner of the undertaker, neither of whom ought to be sent for except in extremity. However, you will find among some people a lot of that old instinct left. There is really something suggestive about a doctor even to a man in the most robust health. I was impressed with this once when I visited a county health meeting given under the auspices of the County Medical Society. It wasn't here. All the doctors in the county were gathered in that little town, and the people turned out en masse. The doctors made some very instructive and interesting talks. They told us what would happen to us if we didn't screen our windows and keep the flies and mosquitoes out of our rooms, keep our milk tins clean, clean our alleys, etc. When they got through, there was an old retired preacher got up. He said that he wanted to say a few words while everybody was there; that he hoped that the presence of so many doctors in town would serve as a reminder to the hopeless crowd how fleeting and transitory was the feeble spark of life, and he urged everybody who had not already done so not to put it off any longer, but immediately prepare to meet their God. The meeting broke up.

We hope you will realize that you are not strangers with us but once, and that just as you got off the train. By the time you have gotten uptown and registered, we feel like you are one of us. By the time you have had your baggage inspected and removed the dust of travel from you and had a square meal, we feel like you are fellow-sufferers and entitled to admission into our innermost circles.

You know doctors occupy a very sacred relation toward their patients and toward the public. You can get closer to folks than any other people in the world, and you ought to use your opportunities for good that way. You can get a great deal closer to people than the preacher, for he can only appeal to the moral, spiritual and intelligent side of man through his intelligence. You can get closer than the lawyer or even the school teacher, for we never get deeper than the skin. While I have had a doctor myself to make a tour of exploration right through the most sacred recesses of my anatomy, both of us have survived to tell the tale. While you are here I hope you will throw dull care to the winds. Don't worry about your patients. It's very likely they are not all like Dr. Wharton's patients, anyway. If I don't quit telling on these local doctors, I will be in a bad fix if I get sick. I had the doctor subpoenaed once as a witness, and took him off to court. The first day he was a little nervous. We didn't get the case up. The next day there was a hitch in the proceedings and we could not get the case up, and he grew exceedingly nervous and restless. The third day he broke out in open rebellion. He told the court that he was very anxious about his patients, and that court or no court, he was going home, because if he didn't get these one of his patients would recover in his absence. The court said it would not be a party to any such unwarranted recovery, and excused the doctor and continued my case.

I am glad that the new school of medicine has come among us. It may be that in the profession you don't recognize the difference between the new and the old school, but there is a difference. The old doctor, while just as good a man at heart, practiced his profession for the benefit of his patient and himself. The new school

of medicine practices the profession from the standpoint of responsibility toward the public. It's meeting the public more than half way; it's educating the public in the matter of preventing diseases rather than their cure, and I am glad to note that the public is meeting you half way along that line. It's a great education to the people, and all the benefits of this new science of preventive medicine can be seen. However, I realize that there are some obstacles, that there are some even yet who object. There are a few among your profession, I regret to say, who object to some of the innovations that have been inaugurated recently. I was on a train not long ago with one of them. I think he was one who had not been taught sanitation, for he didn't look to me like one who ever heard that cleanliness was akin to godliness, and he was kicking very much because he had to have an individual drinking cup. "Why," he said, "when I was a boy, I used to drink out of a jug down in the cornfield with all the niggers, and at school would drink out of the same gourd down at the spring." He said, "Look at me; I am healthy." I am just naturally given to asking questions, and I asked him how many of the niggers were living, and, by George, he nearly threw me off the train. I didn't see a bit of harm in asking the question.

You notice that doctors have new terms, or we fail to understand them, possibly. I never knew until not long ago the difference between a minor and a major operation, but Dr. Purifoy went down to New Orleans and took a post-graduate course in surgery and came home. Pretty soon a friend of mine was operated upon by the doctor, and the operation was very successful from all standpoints, and the patient lived and did well. As soon as he was able to get out, he came up to see me, and I asked him about his operation and what kind it was. He said, "When I look at the little scar there about that long in my side, I understand it's a minor operation, but when I look at the dent in my purse I understand that it's a major operation, and I think he performed both on me."

I see in your program here that this afternoon you have a session on dermatology. I asked my friend, Dr. Rowland, this morning what that meant. He said it was the science of skinning folks. I told Mr. Harper, the dean of our bar here, what it meant, and he said for me to have the members of the bar to meet in his office directly at 1:30 and attend that meeting in a body, that possibly we could learn something.

I wish that I was able in flowery words or with some beautiful language to express to you the welcome that our hearts beat. But, after all, no flowers of fancy and no figures of rhetoric seems to me half as appropriate on occasions like this as the old Arkansawyer's welcome when he took the traveler into his cabin and sat to eat at his pine table and, after returning thanks to Providence, then said, "Thar you are, stranger. If there is anything you want, just reach." You have won our hearts. You merit our admiration. You hold our esteem. And, while you are with us, if there is anything else you want, "just reach."

President: Dr. Gibson will now tell us how glad we are to be here.

Dr. Gibson: May it please the court and gentlemen and gentle women of the jury: We ought to feel decidedly complimentary this morning that the mayor of this important city should have employed an attorney to represent the defense. I can't say whether he is a hired attorney or not, but, whether he did it for love or for money, I am satisfied that it was the first time that a lawyer has ever told the truth. I have long warned the mayor and the council and the citizens to be careful in offering too much to the medical profession, to give them each not only an L but an El Dorado. A few days ago I was invited to address a meeting of the Political Equality League. I don't know what it is, but it was beautiful, and I was requested to speak for five minutes and say nothing. Today I am expected to speak, if necessary, for five hours and say something. I don't know which is the harder job.

There is one unwritten chapter in the history of the State Medical Society of Arkansas that I have sometimes thought that I would write. I am the only one, probably, that knows the real history of it. The first organization in medicine that we have any knowledge of was in 1845. A medical society was organized at Van Buren. The Arkansas State Medical Association, not this society, was organized in 1871. At that time Dr. George W. Lawrence of Hot Springs was a resident physician, and a leading physician of that city. There came to that place Dr. A. Brooks, a man of considerable personality and ability, as far as I know, and an enmity sprang up between those two gentlemen. A young man in Little Rock was taken sick with a disease of uncertain character. It was before the days of Wassermann and Noguchi, and the diagnosis was not as easily made as it would be today. He consulted Dr. Hooper, and Dr. Hooper sent him to Dr. Lawrence. Dr. Lawrence confirmed the opinion of Dr. Hooper. He came back to Little Rock and Dr. Stark was consulted, and he opposed the diagnosis of Dr. Lawrence and he sent him back to Hot Springs to Dr. Brook, who agreed with Dr. Stark. That was the commencement of the enmity between the gentlemen at Hot Springs. It was

carried to the State Medical Association of Arkansas; charges and counter-charges were preferred until in 1874 a large number of the members of the old association withdrew, canvassed the state, and in 1875 organized the State Medical Society of Arkansas. That's the true origin of this society. Since its organization the society has traveled this state all over. We have met in Fort Smith, and came near meeting in Helena in 1886, but they had an overflow and cyclone, so that they could not entertain us. But they had accumulated the funds every year until the last few years. I have heard that they had thought of lending it out on interest with a view of entertaining us some day. From the length of time it has been accumulating interest, I think that we will have a mighty good entertainment when we get there.

But I tell you, ladies and gentlemen of this city, it's quite an honor to entertain us and feed us. We have had some of the most magnificent entertainments of anybody that has ever assembled in this state. We met at Fort Smith, and those enterprising doctors up there had seven men hung in one day. We have met at Hot Springs. We always get a warm welcome and hot time at Hot Springs. Of course, Little Rock is the home of the association. It's the hub of the state. It is the center, the geographical center. That's all I will say now. But a hub has a hole in it, and Little Rock is right in the center of the hub. Consequently, it is a hole, and a hole is nothing. In Pine Bluff in 1889 a great discovery was made by the physicians from Little Rock that the longer champagne stays in a man's stomach, the drunker he gets. And, at Fayetteville, doesn't everybody who went there remember the trip to Fayetteville, where the streams were leaping and shouting from the up-piled rocks to make the earth echo with the joy of the waves, and the sweetest strawberries that ever man put in his mouth. At Batesville we had apple butter and pure cooking butter, and I came mighty near seeing a goat but 'er, but she left before we reached her. And, Eureka Springs in 1898, and the only meeting in thirty-seven years that I haven't attended, there was organized a Committee on Nutrition. Its name never appeared on the program. But I understand that it has done efficient work ever since in prohibition districts. We have been to Texarkana, the land of the cypress and the myrtle, and now we come to El Dorado, and who knows anything about El Dorado? A lawyer is without knowledge and the mayor is without knowledge of his own country, and knows something about everything else. That I might not be caught unawares, I looked up the history, geology, psychology and the gynecology of this place. I didn't know where El Dorado was. I didn't know what it was. But, coming down on the train yesterday, discussing the geography of the country and the town, one fellow said, "Where is Hamburg? What is Hamburg?" A German said, "Hamburg? Hamburg? Oh dot was a state." Someone asked about Monticello. The Italian said, "Monticello? That's a big fellow. That's a 'cello violin.'" And El Dorado—a fellow from Spain, I suppose, he might have been a Mexican, said, "Oh, El Dorado is a cigar." And that's about the idea they had of these places until they come in. But I knew what it was. Now, it's our duty to enlighten you people wherever we may. That's the reason we come to this benighted country.

This is from the Century Dictionary:

"El Dorado: A country rich beyond all precedent in gold and jewels, which the early Spanish explorers believed to exist somewhere in the new world, and which Orellana averred that he had found in his voyage down the Amazon in 1540-1.

"This was soon disproved, but the search was continued down to the Eighteenth Century, and the name has become a synonym for any region said to abound in the means of easily acquired wealth. It was used with specific reference to California for some years after the discovery of gold there in 1848. Sometimes written as one word, as, the 'Eldorado of the West.'

"In El Dorado, we are told the children in the streets play with nuggets of gold instead of marbles.

"El Dorado: A fabulous country, in which gold and precious stones are as common as rocks or sand in other countries. Francis Orellana, a companion of Pizarro, first spread the account of this fabulous region in Europe, and an Englishman even published, at the end of the Sixteenth Century, a description of this favored country with a map. The German 'Schlaraffenland,' where roasted pigeons fly into one's mouth, or where, as Goethe has it, the vines are tied by sausages to the stocks, is something similar, as is likewise the French 'pays de cognac.'

I don't believe that the early Spanish explorers in the quest for gold found any in this county, or any of the precious metals. But they were not the geologists that exist today. If they had been, instead of the yellow gold, yellow metal, they would have seen in these yellow hills, in this yellow pine, in the golden sands, wealth more precious than gold, magnificent pine trees whose roots reach to the eternal fires and whose tops go to the eternal frozen oceans of ether, and whose bodies go to warm the unfortunate people that live in countries where God won't let trees grow and won't let it rain.

I just thought of sanitation there, and the extremes to which it can be carried. I never saw a place as small

as El Dorado where it was carried to the same extent. All over the country I am familiar with individual drinking cups, but this is the first place I have ever been in where they were such sticklers for sanitation that it required everybody to have an individual bottle.

Now, we are going to have a good time. We come for that purpose, and we hope to come again, and when we do come again, sooner or later, and I pray soon, I hope that we all may join in that song that I haven't heard since the war, and wasn't old enough to remember then: "Union forever. Hurrah! girls, Hurrah!"

Down with the traitor, up with the stars;
We will rally 'round the flag, girls, rally once again,
Shouting the battle cry of freedom until we die."

To show our appreciation of this generous courtesy, we will take everything you give us and leave what we can't take away.

Dr. Moore: We have listened with pleasure to the splendid addresses, and now we will have the annual address of our worthy president.

(Printed on first page of this issue.)

Dr. Moore: You have heard the able address of the president. I hope you will consider the suggestions of Heber Springs, inviting the society to meet there next year.

On motion, the general session adjourned.

HOUSE OF DELEGATES.

SECOND DAY.

The House of Delegates was called to order Wednesday morning at 11 o'clock, May 20, 1914, by the president, there being a quorum present.

The secretary here read telegrams from organizations of Heber Springs, Ark., inviting the society to meet there next year.

President: Without motion, those invitations will be referred to the Nominating Committee for action.

Dr. Huntington of Eureka Springs here tenders to the secretary and has read invitations from the mayor and others from Eureka Springs to meet there next year.

Dr. Moore, vice president, here took the chair.

Secretary: I have a communication from the chairman of the Legislative Committee of the New York State Medical Society. This was effected at their meeting last year, and they are calling on all the state societies to help them out.

Whereas, The entry of insane and mentally defective immigrants to this country is a menace to the mental health of the nation, not only in the present, but in the succeeding generations; and,

Whereas, As pointed out by Governor Glynn in a special message to the legislature of New York, this state bears an unequal part of the burden of caring for insane and mentally defective aliens; and,

Whereas, The present immigration laws, although providing for the exclusion of such immigrants, do not provide adequate means for their examination by trained experts nor for effective measures for the return of insane aliens who become inmates of our institutions; and,

Whereas, These are primarily matters of public health; therefore, be it

Resolved by the Medical Society of the State of New York, That Congress be urged to provide for the mental examination of arriving immigrants by physicians in the United States Public Health Service especially trained in the diagnosis of insanity and mental defects; to provide adequate facilities for the detention and careful mental examination of all immigrants at large ports of entry; to provide for the detail of American medical officers on vessels bringing immigrants to this country in order that their welfare may be safeguarded and those with mental diseases or defects discovered; to provide for the assumption by the federal government of an equitable share of the burden of caring for dependent aliens which is now borne entirely by the states, and to provide for the safe and humane return to their own home of those immigrants whom it is necessary to exclude and of those aliens in our public institutions who desire to return; and be it further

Resolved, That copies of this resolution, duly attested, be sent to the president and the vice president of the United States, the secretary of labor, the surgeon general of the United States Public Health Service, the commissioner general of immigration, the chairman of the Senate and of the House Committee on Immigration and to each member of the New York State Delegation in Congress.

Secretary: New York has a great number of mentally defective aliens, and they feel that all the states

should help them out because every state has to bear its burden along this line. Of course, we being away from the sea coast, don't see very much of it.

Dr. Moore: This matter will be referred to the Committee on Resolutions.

Secretary: Here is a telegram Dr. Huntington just received:

"The Missouri-North Arkansas will make a one-fare rate round trip off of connecting points for the 1915 meeting."

Dr. Moore: The report of the chairman of the council, by Dr. Snodgrass, is now in order.

REPORT OF COUNCILORS.

Held in the Union County courthouse.

Called to order at 5:15 p. m. Dr. W. A. Snodgrass, chairman, in the chair.

Roll call showed the following councilors present:

First District—M. C. Hughey.

Second District—Willis, absent.

Third District—T. B. Bradford.

Fourth District—Barlow, absent.

Fifth District—Rinehart.

Sixth District—Archer.

Seventh District—Rowland.

Eighth District—W. A. Snodgrass.

Ninth District—Hathcock, absent.

Tenth District—J. T. Clegg, Siloam Springs.

First District reported increase of twenty-five in membership. Everything progressing well.

Dr. Bradford made report in lieu of Dr. Willis, stating that the Second District affairs were in good shape. All county organizations flourishing. Membership interested and thriving, except Sharp County.

Third District—Every county in the district organized and doing first rate work.

Fourth District—No report.

Fifth District—Unable to make report except in a general way. Wrote all of the counties. Did not hear from Union, Lafayette, Calhoun, Columbia or Dallas. Did not visit any of the counties.

Sixth District—All counties organized. Pike was organized last year; doing fine work; gained thirteen members. Polk and Little River were reorganized and they are doing excellent work. Little River better than ever before. The other counties not visited.

Seventh District—All counties organized and good interest manifested, except in Scott County, which has not enough graduates to organize a society. Last year there were two counties not reporting. Every county has made a gain in membership except Montgomery, which has held its own. There has been a total gain of twenty-six members in the district. Scott County is sparsely settled and has no railroads.

Eighth District—Every county well organized; good attendance at meetings, which are held every month. Net gain of thirty-three.

Ninth District—No report.

Tenth District—Crawford defunct last year; has been reorganized. Have written report from every county except two—Madison and Crawford.

The chair appointed Dr. Clegg, Dr. Archer and Dr. Rowland to examine and audit the reports of the secretary and of the treasurer and editor of The Journal. The committee retired to make examination of the financial statements rendered and later reported them satisfactory. On motion the reports were received and adopted of record.

The Chair: The publication of The Journal is entirely in the hands of the council, and I must say the editor has managed it faithfully and successfully during the year and is deserving of our congratulation and sincere expression of appreciation for his industry and zeal. Quite a comfortable increase of earning is shown by reason of additional advertising space sold and the appearance of The Journal is neater and more attractive.

The editor reported a collection of \$1,164.00, with all bills paid and \$37.31 balance on hand, and some uncollected bills believed to be good assets.

Attention was called to the half-page ad of a medical college in an adjoining state, while only the clinical ad of the University of Arkansas was shown. Councilor Hughey was in favor of carrying the ad of the University of Arkansas without charge, if they were unable to devote a fund to that purpose. This suggestion, however, was not deemed to be expedient or justified. It was the sense of the meeting that the Board of Trustees of the University should be able to secure an appropriation that would cover advertising as well as other expenses.

After some further discussion as to medical organizations and the progress made in counties recently organized by the state organizer, matters in Perry County were also commented upon, after which the meeting, on motion, adjourned to meet again at 8:30 Wednesday morning in the courthouse.

The chairman, in dismissing the councilors, requested them to prepare their expense accounts and written re-

ports to be submitted on their return on Wednesday morning.

Dr. Kirby: I move that it be received and approved.

Seconded. Carried.

Dr. Gibson: I have a resolution:

Resolved, That a committee of five members be appointed to place in the Arkansas Tuberculosis Sanatorium at Booneville a suitable tablet commemorating the beneficent and successful work of our late member, John S. Shibley, M. D., in establishing and conducting that institution.

Resolved, That so much money as may be necessary to appropriately place this tablet is hereby appropriated for that purpose.

Dr. Hunt: I move that it be referred to the Committee on Resolutions.

Seconded. Carried.

On motion, the House of Delegates adjourned.

HOUSE OF DELEGATES.

FOURTH DAY.

The House of Delegates was called to order Friday morning at 10 o'clock, May 22, 1914, by the president, there being a quorum present.

The report of the Nominating Committee was here read:

To the House of Delegates of the Arkansas Medical Society:

We, your Nominating Committee, submit the following:

Resolved, first, That the Nominating Committee recommends that the various section officers be dispensed with.

Resolved, second, That the Nominating Committee recommends that the House of Delegates amend Chapter 4, Section 1, of by-laws, so as to provide that the meeting of the House of Delegates shall be held on the first day of the annual meeting instead of the day preceding, as now provided.

We recommend for president Dr. St. Cloud Cooper, Fort Smith; Dr. W. A. Brown, Monticello; Dr. J. C. Wallis, Arkadelphia.

We recommend for vice president: First vice president, Dr. G. A. Warren, Black Rock; second vice president, Dr. R. A. Hilton, El Dorado; third vice president, Dr. R. S. Rice, Rogers.

We recommend for secretary Dr. C. P. Meriwether, Little Rock.

We recommend for treasurer Dr. W. R. Bathurst, Little Rock.

We recommend for councilors: Second District, L. T. Evans, Barren Fork; Fourth District, E. C. McMullen, Pine Bluff; Sixth District, C. A. Archer, DeQueen; Eighth District, W. A. Snodgrass, Little Rock; Tenth District, J. T. Clegg, Siloam Springs.

American Medical Association—Robert Caldwell, delegate, Little Rock; J. T. Clegg alternate, Siloam Springs.

Places for annual meeting, 1915: Little Rock, Heber Springs, Eureka Springs.

Respectfully submitted.

LEONIDAS KIRBY, Chairman.

Attest: J. B. ROE, Secretary.

The election of a president being in order, on the second ballot the vote was: Dr. Cooper, 23; Dr. Wallis, 16; Dr. Brown, 5. Dr. Cooper, having received a majority of all the votes cast, was declared elected president for the ensuing year.

Dr. Kirby: I move that we make his election unanimous.

Seconded. Carried.

Dr. Hunt: I move that the other members be elected as named by the Nominating Committee.

Seconded. Carried.

President: What as to the other recommendations of the Nominating Committee?

Dr. Snodgrass: Who will take charge of the scientific program, the council?

President: I wish to say that Dr. Meriwether and myself appeared before the Nominating Committee and made this statement to them, which I think any man who will look into the matter will find is the truth, that section officers sometimes complicate the arrangement of the program. The constitution provides for a Committee on Scientific Program, and we feel the program can be better arranged by the Committee on Scientific Program, that it can be executed at the meeting with less loss of time in changing

from section to section in the course of a three days' meeting. That was the argument that we made, and the reason for the recommendation.

Dr. Hunt: I would like to ask if the secretary is a member of the Program Committee?

Secretary: Ex-officio.

Dr. Hunt: That's all right, because there have been some complications that came up this year that they needed the secretary very much.

President: The section officers are not provided for in the constitution. That is only by a motion from year to year in the House of Delegates or by custom that they are carried on.

Secretary: That is one reason we have asked for this change. There are some conditions that the secretary is aware of that probably other members don't know anything about, and the section officers will sometimes get into hot water and then have to back up. We have had that to happen this time, and want to avoid these complications in the future.

Dr. Ellis: I move that the recommendation of the Nominating Committee doing away with the section officers be approved.

Seconded. Carried.

REPORT OF COUNCIL.

The council of the Arkansas Medical Society met for organization on Friday, May 22, 1914, the last day of the El Dorado session. Dr. W. A. Snodgrass, Little Rock, Eighth District, was re-elected chairman; Dr. J. S. Rinehart, Camden, Fifth District, was elected secretary.

The following bills were allowed by the council, being the expenses for the past year:

C. P. Meriwether, secretary, \$23.25, stamps, phone and telegrams.

W. R. Bathurst, editor, \$53.25, postage one year, express, repairs on typewriter.

Councilor Hughey, \$20.94.

Councilor T. B. Bradford, \$30.70.

Councilor C. A. Archer, \$10.00.

Councilor J. F. Rowland, \$7.65.

Councilor W. A. Snodgrass, \$21.85.

Councilor J. T. Clegg, \$25.00.

A special bill of \$25.00 was allowed and ordered paid to Dr. J. C. Hughes for money advanced and used by him as traveling expenses while councilor for the Second Council District in the years of 1907-08-09.

The editor and secretary of the society were allowed an honorarium of \$500.00 each and the customary allowance of \$50.00 each for stenographer fees.

Adopted.

The selection of a meeting place was next in order. The secretary here read the various invitations from Heber Springs, Eureka Springs and Little Rock.

Dr. Huntington: In behalf of Eureka Springs, I would like to extend you an invitation to come there. We feel Eureka Springs is unknown to a great many doctors in this state, and we would like to have them there and show them our city and tell them something of our water.

Dr. Hunt: I move we meet in Little Rock in 1913.

Seconded. Carried.

Dr. Snodgrass: I would like for the State Medical Society to extend an invitation to the Southern Medical Association to hold their 1915 meeting at Little Rock.

Seconded. Carried.

Dr. Eberle: Carrying out the recommendation of the Nominating Committee, I offer this amendment:

Resolved, That the by-laws be amended by striking out of Section 1, Chapter IV, the words "before that" thus making the section read that the House of Delegates shall meet on the first day of the annual meeting instead of the day preceding, as now provided.

President: It lays over until next year.

Dr. Eberle: I also have this resolution to offer:

Whereas, The welfare of the Arkansas Hospital for Nervous Diseases is of vital concern, not only to the medical profession of the state, but to every citizen as well; and,

Whereas, The condition of that institution under its present management is a source of pride and satisfaction to the physicians and citizens generally of the whole state; therefore, be it

Resolved, That the Arkansas Medical Society hereby endorses the wise and able management now having charge of the hospital and sincerely commends it to our citizens as in every way deserving of the confidence and support of our people.

I move its adoption.

Seconded. Carried.

Dr. L. Gibson: I move that this resolution be transmitted to the general session for adoption there.

Seconded. Carried.

Dr. Hunt: I desire to offer this resolution:

In view of the fact that Dr. C. C. Bass is the chairman of the Commission for the Study and Prevention of Malaria, appointed by the Southern Medical Association, is to address this association today, and since it is the desire and purpose of this commission to begin, in the near future, a systematic publicity campaign, using all the medical journals simultaneously to put before the medical profession a treatise on the treatment and cure of malaria, and since Mississippi, Louisiana and Texas have already adopted such a policy, I hereby move that the paper above referred to be accepted as a paper for publicity use.

Seconded. Carried.

Dr. Southall: I desire to offer the following:

Be it Resolved, That the words "who is a graduate of a reputable medical college" be stricken from Section 5 of Chapter IX of the by-laws of this society.

President: That will lay over for a year.

Dr. Eberle: I move that it is the sense of this House of Delegates that the Pulaski County Medical Society not have their annual banquet at our next meeting.

Seconded. Carried unanimously.

Dr. Gibson: The Committee on Resolutions consists of myself, Dr. Hebert and Dr. Wallis. Dr. Hebert has gone home, and I have been unable to see Dr. Wallis. I would report this resolution, as far as I am concerned, without the ability to recommend it. I think it is one that does not need any recommendation:

Resolved, That a committee of five members be appointed to place in the Arkansas Tuberculosis Sanatorium a suitable tablet commemorating the beneficent and successful work of our late member, John S. Shibley, M. D., in establishing and conducting that institution.

Resolved, That so much money as may be necessary to appropriately place this tablet is hereby appropriated for that purpose.

Seconded. Carried.

Secretary: This resolution I offered from the State Medical Association of New York in regard to asking the United States government to help bear out the expense of taking more of the alien defectives, the committee did not get to act on it at all, and it is left unacted upon.

Dr. Gibson: I move that the resolution be adopted.

Seconded. Carried.

On motion, the House of Delegates adjourned sine die.

GENERAL SESSION.

FOURTH DAY.

The general session was called to order Friday morning, May 22, 1914, by the president.

The report of the Nominating Committee was read to the general session by the secretary, and the action of the House of Delegates thereon stated.

The report of the Reference Committee:

To the President and Members of the Arkansas Medical Society:

We, your Reference Committee, after diligently investigating the reports of the various committees referred to us, beg leave to report as follows:

That the report of the committee the nurses' training school are up to the standard demanded by law, but we personally feel that the law as it is drafted to prevent the training of nurses in institutions that cannot train less than eight nurses at one time is somewhat partial, since its enforcement would eliminate the training of nurses in the Paragould Sanitarium and several other good and well-qualified institutions that are necessarily by such law deprived of some of their just rights.

We endorse the president's address to the House of Delegates and commend it to you for your careful consideration.

We refer the report of the inspector of the Medical Department of the Arkansas University to you for your just consideration and final disposal.

The report of the Legislative Committee we accept and recommend that their suggestions be carried out and enforced in every county in the state by appointing a suitable number of the most influential doctors to see their respective representatives before the next legislature meeting, and do all possible to affect the passage of such measures for the better interests of the state and county institutions.

The report of the Public Health and Hygiene Committee is showing good and efficient work and we hope the good work will go further as time goes on.

The report of the chairman of the council shows they are doing a most excellent work. We wish to thank them most heartily for their tireless efforts.

We further recommend the admission of undergraduates to membership on some basis that will be satisfactory to the society.

We think and recommend a suitable appropriation of a suitable amount of money to investigate the reports of the various pellagra cases in our state.

J. B. ROE, Chairman.

E. L. WILSON,

J. S. HUGHES, Secretary.

Dr. Warren: I move its adoption.

Seconded. Carried.

Dr. Eberle: The following resolution was adopted by the House of Delegates this morning, and I was instructed to present it to the general session.

(The resolution referred to is the one commending the management of the State Hospital for Nervous diseases.)

I move the adoption of the resolution.

Seconded. Carried.

Dr. Vinsonhaler: Dr. Welch has been in very delicate health. He is held in high esteem by everyone who knows him. I think it is nothing but fair that this society send to the society through the secretary a message of greeting.

Seconded.

Dr. Mann: I would also add that a message be sent Dr. Crutcher at Pine Bluff, who is very low. He is a long-timed member of this society. He will probably not live more than a week or two.

Seconded. Carried.

President: On this motion the appointing of a committee was not mentioned, but I will take it upon myself to appoint a committee consisting of Dr. Vinsonhaler, Dr. Mann and Dr. Eberle to draft suitable telegrams to these two gentlemen.

Dr. Kirby: I move that a vote of thanks be extended to the Union Medical Society, the citizens of El Dorado, the Elks' Club and the hotels.

Seconded. Carried.

President: My reign as president of this organization is now at an end. I want to thank you for the honors you have shown me and for the courtesy with which I have been treated, and I will ask Drs. Wallis and Brown to present my successor, Dr. Cooper.

On motion, a vote of thanks was extended the retiring president for the impartial and able manner in which he has presided over this body.

Dr. Cooper: Gentlemen of the Arkansas Medical Society: Of course, one could not help but feel very much honored indeed by being elected president of this society. I have been a member of the Arkansas Medical Society for about twenty years. I have attended almost all of the meetings, probably missing two or three. I believe as I go to the society meeting every year I see improvement in the papers and in the discussions and in the men. Consequently, to be president of a society that is growing like this and improving like this society is is an honor indeed. I feel somewhat that I am a man out of place. I rather feel that I am not large enough in a great many ways to be the president of this society. However, since I am elected president, with your assistance I will try to do the best I can. I believe that this meeting has been the best meeting I ever attended in regard to work. It is not so large in attendance, but in scientific work and in good work I think this is the best meeting we have ever had. Again I thank you for the honor.

On motion, the general session adjourned sine die.

New and Non-Official Remedies.

Since publication of New and Nonofficial Remedies, 1914, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Non-official Remedies:"

SODIUM BIPIOSPHATE (Squibb).—This non-proprietary form of sodium acid phosphate has been accepted for inclusion with New and Nonofficial Remedies. E. R. Squibb & Sons, New York (Journal A. M. A., May 2, 1914, p. 1401).

NORMAL HORSE SERUM WITH CHLOROFORM AS A PRESERVATIVE.—Marketed in vials, each containing 50 cc. H. M. Alexander & Co., Marietta, Pa.

NORMAL HORSE SERUM WITHOUT PRESERVATIVE.—Marketed in vials, each containing 50 cc. H. M. Alexander & Co., Marietta, Pa. (Journal A. M. A., May 2, 1914, p. 1401).

EREPTON.—A meat product consisting largely of the amino-acids produced by the digestion of meat. Erepton is said to be useful in cases in which it is necessary to substitute a perfectly digested food for the product of natural digestion in cases of gastric or intestinal indigestion and for the purposes of rectal alimentation. Farbwerke Hoechst Co., New York (Journal A. M. A., May 16, 1914, p. 1559).

ACNE SEROBACTERIN (Mulford).—This is a sensitized coli vaccine. H. K. Mulford Co., Philadelphia, Pa.

NEISSER SEROBACTERIN (Mulford).—This is a sensitized gonococcic vaccine. H. K. Mulford Co., Philadelphia, Pa.

PNEUMO SEROBACTERIN (Mulford).—This is a sensitized pneumococcic vaccine. H. K. Mulford Co., Philadelphia, Pa.

STAPHYLO ACNE SEROBACTERIN (Mulford).—This is a sensitized staphylo acne vaccine. H. K. Mulford Co., Philadelphia, Pa. (Journal A. M. A., May 16, 1914, p. 1559).

NEW BORNYVAL.—New bornyval is borneol isovaleryl glycolate, the isovaleryl glycolic acid ester of borneol. Being more resistant to the gastric fluids than bornyval, it passes the stomach unchanged and is said therefore

to be less irritating than bornyval. Its properties are similar to those of bornyval and other valerian preparations. New bornyval is an almost tasteless and odorless liquid, insoluble in water. It is sold also in the form of bornyval pearls, each containing four minims of new bornyval. Riedel & Co., New York (Journal A. M. A., May 23, 1914, p. 1637).

Since publication of New and Nonofficial Remedies, 1914, the following articles have been accepted for inclusion with "N. N. R." These accepted during the current month are made prominent by the use of capitals.

H. M. Alexander & Co.:

Normal Horse Serum; Typhoid Vaccine, Immunizing.

Antiseptic Supply Co.:

Causticks; Caustick Applicators; Cupriesticks; Stypticks.

Arlington Chemical Co.:

ARLCO UREASE.

Comar & Cie:

ELECTRARGOL.

Farbwerke Hoechst Co.:

Amphotropin, Erepton.

Fairchild Bros. & Foster:

Trypsin.

Franco American Ferment Co.:

LACTOBACILLINE TABLETS; LACTOBACILLINE LIQUIDE, CULTURE A; LACTOBACILLINE LIQUIDE, CULTURE D; LACTOBACILLINE LIQUIDE, INFANT CULTURE; LACTOBACILLINE GLYCOGENE TABLETS; LACTOBACILLINE (GLYCOGENE LIQUIDE); LACTOBACILLINE MILK TABLETS; LACTOBACILLINE MILK FERMENT; LACTOBACILLINE SUSPENSION.

Hoffman-LaRoche Chemical Works:

Thiocol; Syrup Thiocol, Roche; Thiocol Tablets.

Hynson, Westcott & Co.:

Phenolsulphonephthalein, H. W. & Co.; Phenolsulphonephthalein Ampules, H. W. & Co.

Merck & Co.:

Cerolin.

H. K. Mulford Co.:

Acne Serobacterin; Anti-Anthrax Serum, Mulford; Antistreptococcus Serum Scarlatina, Mulford; Coli Serobacterin; CULTURE OF BULGARIAN BACILLUS, MULFORD; Disinfectant Krelon, Mulford; Neisser Serobacterin; Pneumo Serobacterin; Salicylos; Scarlatine Strepto Serobacterin; Staphylo-Serobacterin; Straphylo Acne Serobacterin; Strepto-Serobacterin; Typho-Serobacterin.

Riedel & Co.:

New Bornyval.

Reinschild Chemical Co.:

Phenolphthalein Agar.

E. R. Squibb & Sons.

Sodium Biphosphate, Squibb; Tetanus Antitoxin, Squibb; TETANUS ANTITOXIN, SQUIBB, 5,000 UNITS.

Wm. R. Hubbert:

Diphtheric Antitoxin, Hubbert.

Having been advised that Diphtheric Antitoxin, Hubbert, was no longer on the market, the council directed that it be omitted from future editions of New and Nonofficial Remedies.

Riedel & Co.:

Hexalet.

At the request of the manufacturer, the name Hexal in New and Nonofficial Remedies has been changed to Hexalet.

Propaganda for Reform.

VALENTINE'S MEAT JUICE.—Four years ago an examination by the Council on Pharmacy and Chemistry showed that Valentine's Meat Juice was not a meat juice, but had the character of a meat extract instead, while on the basis of the claim that it was a meat juice extravagant assertions as to its nutritive value were made. The product being a meat extract, was practically devoid of nutrient qualities. As Valentine's Meat Juice is still widely advertised, the council deemed a re-examination important. This re-examination shows that in general it has the composition now as then, and that the same unwarranted claims are still made for it (Journal A. M. A., May 2, 1914, p. 1419).

LOWER'S GERMAN PRESCRIPTION.—This "consumption cure," hailing from Marion, Ohio, is sold under the claims: "The most

deadly foe to the great White Plague—TUBERCULOSIS—science has yet produced." "It takes from fifteen to thirty large bottles of German Prescription to remove the tuberculosis poison," each bottle costing the victim two dollars. The composition of the nostrum is purported to be (in bastard Latin): "Herb Menthaepeperitate, Herb Marrubium Valgarac, Ex Balsanum Tolutonum, Herb Hydrastis Canadensis, Scillae Maratinia, Mentholis, Ex Virginiana Prunus, Ex Capsici Fastigatum." An examination made in the A. M. A. Chemical Laboratory indicates that whatever therapeutic virtues this peppermint-horehound-cayenne pepper-menthol mixture possesses are due to the 1.83 gm. menthol per 100 c.c. which it contained. About the only effect produced by the mixture will be to derange the digestion of the person taking it (Journal A. M. A., May 2, 1914, p. 1419).

PITUITARY EXTRACT.—The use of pituitary extract as an oxytocic must be considered in the experimental stage. A large number of cases have been reported in which untoward effects from the use of various pituitary extracts (including pituitrin) were obtained (Journal A. M. A., May 2, 1914, p. 1420).

PANCREATIN.—Long and Huhleman report that mere traces of hydrochloric acid will destroy the ptyalin of pancreatin; that pancreatin of commerce—which often is not pancreatin, but merely the dried pancreas gland—is practically devoid of lipase, the fat-digesting ferment, and that its tryptic ferment is likely to be destroyed by the action of the pepsin and hydrochloric acid during its passage through the stomach (Arch. Int. Med., February, 1914, p. 314).

THE OKOLA LABORATORY.—The postmaster general has issued a fraud order against the Okola Laboratory, Inc., Rochester, N. Y., which sold a mail order treatment for weak eyes. The "laboratory" advertised that Dr. John L. Corish, "an able New York physician" and "an eminent medical man," had discovered a marvelous treatment for affections of the eye by which those who were wearing glasses, or should have been wearing glasses, would do without them. The treatment consisted of three parts. Okola was the name of some tablets proven by the government to consist of baking soda and boric acid. The Okolator was a metal inhaler containing cotton moistened with a volatile liquid. The Okolizers were printed cards giving instruc-

tions for rubbing the eyes, etc. (Journal A. M. A., May 9, 1914, p. 1492).

PA-PAY-ANS (Bell) NOW BELL-ANS.—Bell & Co. announce that Pa-pay-ans (Bell) is in the future to be known as Bell-ans. An examination of Pa-pay-ans (Bell) made by the Council on Pharmacy and Chemistry having failed to demonstrate the presence of papain, it is probable that the change of name was decided on to escape prosecution for misbranding (Journal A. M. A., May 9, 1914, p. 1492).

BROMIDIA (Battle & Co.).—A report of the Council on Pharmacy and Chemistry points out that while the name suggests bromid, Bromidia is essentially a chloral preparation. This nostrum illustrates the need of the council's rule under which recognition is refused to pharmaceutical mixtures whose name does not indicate their most potent ingredients. While the chloral content of Bromidia has been given considerable publicity, yet the preparation is used both by physicians and by the public, without due consideration of its potent ingredient, as attested by the fatal results and the habit formation which have resulted from its use. The Bromidia advertising propaganda first admits the presence of chloral, then it is argued that in Bromidia the evil effects of chloral are eliminated and in the end the impression is left that Bromidia is practically innocuous and may be given in cases of typhoid and to children (Journal A. M. A., May 16, 1914, p. 1573).

MONTE CRISTO RUM AND QUININ FOR THE HAIR.—The government chemists found this preparation to contain ethyl alcohol, wood alcohol and a trace of quinin. The manufacturers were found guilty of adulteration and misbranding the preparation (Journal A. M. A., May 16, 1914, p. 1575).

PEPSIN MAGEN BITTERS.—The government chemists found this preparation to contain only a trace of pepsin. The preparation was declared misbranded (Journal A. M. A., May 16, 1914, p. 1575).

BAVARIAN MALT EXTRACT.—The government chemists proved that this was not a malt extract coming from Bavaria, but instead was beer. The product was declared misbranded (Journal A. M. A., May 16, 1914, p. 1575).

THIOCOL READMITTED TO N. N. R.—In 1913 the Council on Pharmacy and Chemistry di-

rected the deletion from New and Nonofficial Remedies of Thiocol and Syrup Thiocol, Roche, because a preparation called Sirolin, containing thiocol as its effective component and practically the same as Syrup Thiocol, Roche, was being advertised to the public. The Hoffmann-LaRoche Chemical Works having furnished assurance that the public exploitation of Sirolin has been discontinued, the council voted that Thiocol and Syrup Thiocol, Roche, be restored to New and Nonofficial Remedies (Journal A. M. A., May 23, 1914, p. 1637).

ANTI-MENINGITIS SERUM.—The untoward or fatal effects sometimes following the use of anti-meningitis serum are probably due to the toxic action of the preservative contained in it, or to increased intracranial tension due to its administration. The technic of its employment should be improved rather than its use abandoned. The dangers which may arise from its use are not to be feared as much as the disease itself (Journal A. M. A., May 23, 1914, p. 1661).

LIQUID PETROLATUM OR "RUSSIAN MINERAL OIL."—A report of the Council on Pharmacy and Chemistry points out that petroleum oil was used as a medicine by the ancients and that the product "liquid petrolatum" is now on the market under a host of proprietary names and is official in most pharmacopoeias. It was at one time used in the treatment of tuberculosis and as an adulterant of fats and oils on the assumption that it was assimilable. It is now known to pass the system unchanged and has recently been highly lauded as a particularly harmless laxative in the treatment of habitual constipation. As the U. S. P. definition of liquid petrolatum permits the use of rather widely varying products, and as there is some difference of opinion whether a light or a heavy oil is preferable, the council recommend that physicians desiring the water white, nonfluorescent (Russian) mineral oil use the term *petrolatum liquidum* grave or *paraffinum liquidum*, B. P., if the heavy product preferred by Sir W. Arbuthnot Lane is desired, and *petrolatum liquidum laeve* if the light variety is desired (Journal A. M. A., May 30, 1914, p. 1740).

CIRKULON.—The device "Pulsocon," which Gerald Macauro has exploited widely in England, is sold in this country as "Cirkulon" by the "Cirkulon Institute" of Kansas City, Mo. Gerald Macauro, according to the Asso-

elated Press, has been sentenced in France to serve a term of three years' imprisonment on a charge of fraud (Journal A. M. A., May 30, 1914, p. 1742).

County Secretaries' Association of the Arkansas Medical Society.

To the Secretaries of the County Societies:

At the El Dorado meeting of the Arkansas Medical Society we organized the county secretaries, with H. H. Niehuss as president, and hope to enlist every secretary in the state. The aim of this organization is to get the secretaries to work together, comparing notes, particularly at the annual meeting held in connection with the State Society meeting, to promote the county society, to increase its membership, to add interest to its programs, and lastly to boost the attendance at the regular State Society meetings. This kind of organization has been found effective in other states and we expect to make it so here.

Will every secretary in the state please write to me and express his views on the subject, signify his willingness to become a member, and make any suggestions? Please state when writing if you were present as a charter member, that I may get the minutes straight. In writing, please tell us also of any plan you have found successful in getting your members to attend, of getting them to write papers, that is, to work on them, or in any way to add interest to the county society meetings.

May the influence of this organization of secretaries be felt at the 1915 meeting at Little Rock in a largely increased attendance. Will you help?

THOS. DOUGLASS, Secretary.

Ozark, June 4, 1914.

District Societies.

FIRST DISTRICT MEDICAL SOCIETY.

(Reported by J. Phillip Hunt, Sec.-Treas.)

The First District Medical Society of Arkansas met in regular session in the Y. M. C. A. hall at Jonesboro, April 28, 1914. The meeting was called to order at 10 a. m. by the president, and the following papers were read:

MORNING SESSION.

"Mastoiditis," J. Wilson Ramsey, Jonesboro.

"A Case of Tetanus Successfully Treated with Tetanus Antitoxin," Henry Dixon, Paragould.

"Vaccine and Serum Therapy," G. A. Warren, Black Rock.

"The Care Necessary for Adjustment of Fractures," C. M. Lutterloh, Jonesboro.

"Diagnosis and Surgical Treatment of Amebic Dysentery," Kenton, Paragould.

Laneheon at the Warner House.

Afternoon session at 2 p. m.

"Treatment of Malaria Prophylactic and Curative," J. Phillip Lunt, Leonard.

"Crude and Careless Diagnostic Methods and Result of Same in Some Reeto-Colic Conditions," John L. Jelks, Memphis, Tenn.

"Some Phases of Public Health Work," T. B. Bradford, Cotton Plant.

The papers were very instructive and well prepared and were generally discussed.

The following officers were elected for the ensuing year:

President—Kenton.

Vice President—O. Howton.

Secretary-Treasurer—J. P. Lunt.

Jonesboro was selected as the place for the next regular meeting.

County Societies.

LAWRENCE COUNTY.

(Reported by H. R. McCarroll, Sec'y.)

The Lawrence County Medical Society held its regular meeting in the office of T. C. Neece at Walnut Ridge, May 6, President G. Max Watkins in the chair.

One of the features of the meeting was a clinic presented by T. C. Neece. A case of primary synovial tuberculosis of the hip joint in a child of three years of age was very interesting. It was discussed by all present.

G. A. Warren of Black Rock gave us an excellent paper on "Hemorrhages of the Menopause." A profitable discussion followed.

A majority of the members of the society are taking greater interest in the meetings and in their work, and all feel that the society is accomplishing much good in scientific work and creating a greater interest in organized medicine.

Our next meeting will be held at Portia, on the first Wednesday in June. "Obstetrics" will be the subject for discussion and many good papers are promised.

LAWRENCE COUNTY.

(Reported by H. R. McCarroll, Sec'y.)

The Lawrence County Medical Society met in regular session at Portia, Ark., on Wednesday, June 3, 1914, with W. J. Robinson. The program was "Obstetrics" and the following subjects were given to the following men:

"Preliminary Instructions to the Expectant Mother," T. C. Neece.

"Therapy in Parturition," J. M. Stephens.

"Indications and Uses of the Forceps," Earl Thomas.

"Means and Methods of Controlling Post-Partum Hemorrhage," J. C. Poindexter.

"Puerperal Eclampsia," A. L. Peacock.

"The After Management of Labor," W. W. Hatcher.

"Report of Delegate," J. C. Hughes.

As the weather was fine and the roads in excellent condition for driving, and the doctors not very busy, the attendance was better than usual. T. C. Neece, Earle Thomas and W. W. Hatcher were present with their papers, which were well prepared and would have been enjoyed by any progressive physician. They were ably discussed by most of the physicians present, and the meeting was beyond question profitable to those so fortunate as to be present. It is a lamentable fact that a few of our number miss all of these good things by never attending their society meetings. It has been said—and truly so—that the doctors who are most faithful in attending their meetings are the best physicians in the county.

J. C. Hughes gave us an interesting account of the state meeting, and it is gratifying to us all to know that our State Society is in such an excellent condition; and it is plain to all that it is doing a vast amount of good.

The following members were present: J. O. Hatcher, A. G. Henderson, J. C. Hughes, H. R. McCarroll, T. C. Neece, W. J. Robinson, J. H. Stidham, J. C. Swindle, Earle Thomas, C. C. Townsend and G. A. Warren.

CARROLL COUNTY.

(Reported by Robert H. Huntington, Sec'y.)

Green Forest, April 1.—The Carroll County Medical Society met in regular session in the office of F. R. Morrow. Members present: F. R. Morrow, E. E. Poynor, C. A. George and R. H. Huntington.

J. E. Phillips, formerly of Van Buren, now of Eureka Springs, was elected a mem-

ber. Dr. Hale of Willow Grove was present as a guest.

Essays presented: "The Physician's Fees—How to Collect," a paper by C. A. George, and "The Physician's Fees—When to Collect," a paper by E. E. Poynor. Each contained good thought and called forth reminiscences and advice from all present.

Motion that a regular meeting be held every two months instead of quarterly was duly made and it carried.

Eureka Springs was chosen for next meeting.

FRANKLIN COUNTY.

(Reported by Thos. Douglass, Sec'y.)

The Franklin County Medical Society held its regular meeting May 5 at Ozark. T. B. Blakely presided. Also present were: Drs. J. P. Blakely, Williams, Wear, Downey, Gibbons, Harrod, Porter, Houston, Burgess, Blackburn, Warren and Douglass.

T. S. Burgess of Altus was elected to membership.

A public health meeting is soon to be held here under the auspices of the society, with the co-operation of the Ladies' Club, the Commercial Club, the churches and the public school. Morgan Smith has been requested through the American Medical Association to deliver the lecture. The date will be announced soon.

The following volunteered for Red Cross work in Mexico if needed: T. B. Blakely, Hugh Houston, J. C. Harrod, T. S. Burgess and Thomas Douglass.

Papers on "Pellagra," "Calomel" and "Empyema" were read and discussed.

Program for the next meeting: "Obstetrics," Dr. Porter; "Strychnin," Dr. Wear; "Smallpox," Dr. Williams; "Erysipelas," Dr. Gibbons. A general discussion of the new health law.

This is our sixth regular successive meeting with good attendance. We hope not to miss one this year.

JEFFERSON COUNTY.

(Reported by J. T. Palmer, Sec'y-Treas.)

The Jefferson County Medical Society held its regular monthly meeting at Pine Bluff Tuesday evening, June 2, with the following members present: Woodul, Jordan, Breathwit, Doss, Stewart and Palmer.

Dr. Jordan reported an interesting case of tubercular peritonitis, which was enjoyed by all. Dr. Jordan also reported a similar case which was operated on at the age of three years, and a period of four or five years has elapsed with the child remaining well and strong. Several other interesting cases were reported.

A committee of three—Breathwit, chairman, with Withers and Stewart—was appointed to draft resolutions on the death of William Crutcher, who died at his home in this city, May 22, 1914.

Necrology.

KELLER.—J. M. Keller died May 27 at his home on Cedar Street, Hot Springs. Dr. Keller was known wherever there were ex-Confederate soldiers, as he had been for many years a prominent figure in United Confederate Veteran circles. He served in the Medical Department of the Confederate Army throughout the war between the states.

Dr. Keller was born in Alabama and in early life studied medicine, settling in Louisville, Ky., after graduating. He married Miss Sallie Phillips of that city, and later lived in Memphis, where he practiced his profession. During the war when the Federals took Memphis, his wife and two infant children were sent down the river in a boat and landed in the swamps, and it was only by the kindness of citizens that they were cared for.

Dr. Keller moved to Hot Springs in 1877, and for many years had a large practice there. One of his two sons, a physician, died many years ago. His wife died a short time after they celebrated the fiftieth anniversary of their wedding. One son, Murray Keller of Chicago, survives, and a grandson and niece who lived with him.

Keller Chapter, U. D. C., of Little Rock, was named in his honor.

When John Ike Moore was acting governor of Arkansas, he appointed Dr. Keller one of five members of the Confederate Home Board, the other members being Mgr. J. M. Lucey of Pine Bluff, former Governor Dan W. Jones, J. H. Lenow and Jonathan Kellogg.

HUGHES.—S. D. Hughes, forty-three years old, formerly of Wilmar, where he was a practicing physician for a number of years and a member of the State Board of Health, died June 1, at Little Rock, after a lingering illness of one year.

He is survived by his wife, one son, G. B. Hughes of Little Rock; his parents, Mr. and Mrs. W. M. Hughes of New Gascony, and two brothers, J. F. Hughes of Monticello and A. A. Hughes of New Gascony.

The body was sent to Monticello, where funeral services were held, conducted by the Rev J. W. McCain.

CRUTCHER.—William Crutcher, one of the leading physicians and surgeons of Pine Bluff, died May 22, at his residence, 805 Pine Street, from pulmonary tuberculosis.

Dr. Crutcher was born at Richmond, Ky., December 31, 1866. He attended school at Central College, Danville, Ky., and Central University, at Richmond, Ky. He there engaged in the drug business and graduated with first honors at the Philadelphia College of Pharmacy in 1887. Later he returned to Philadelphia and entered the Jefferson Medical College, where he graduated with honors in 1896. After graduating, he located in Forrest City, Ark., where he practiced his profession for four years, then located in Pine Bluff, where he resided continuously since that time.

On September 22, 1897, he was married to Miss Edna Earle Mann, who with two daughters, Misses Virginia and Evelyn, survive him. In addition, he is survived by his mother, who was present when the end came; also two sisters, Mrs. W. J. McIntosh, Austin, Tex., and Mrs. J. H. Keith, Farney, Tex., and six brothers, Howard Crutcher, Roswell, New Mexico; L. P. Crutcher, Long Beach, Cal.; H. D. Crutcher, Los Angeles, Cal.; Rev. J. N. Crutcher, Neosho, Mo.; P. F. and L. H. Crutcher, Pine Bluff, Ark.

He was the son of the late Rev. S. W. Crutcher, at one time pastor of the First Christian Church here, who died in 1907 at the age of sixty-nine.

Dr. Crutcher was an enthusiastic member of the Jefferson County Medical Society, the Arkansas Medical Society and the American Medical Association. He was a brilliant conversationalist, a fluent writer, and his memory for details was remarkable. He was an earnest worker and contributed to his societies many valuable papers for the advancement of medical science. In 1903 he was appointed by the governor a member of the first State Board of Medical Examiners. As a member of this board he rendered valuable services toward elevating the standard of requirements for the medical profession of this

state. Later, because of his knowledge of pharmacy, he was elected by the Arkansas Medical Society a delegate to represent the medical profession of this state at a conference held in Washington to revise the United States Pharmacopoeia.

Dr. Crutcher also was a member of the Elks' Lodge and a Mason.

The funeral was held May 24 from the residence at 805 Pine Street, conducted by Rev. C. C. Cline and Rev. James Thomas. The following pallbearers officiated: Honorary—J. W. Withers, W. S. Stewart, Wm. Breathwit, J. W. Scales, J. S. Jenkins, A. G. Thompson, C. A. Glover, B. D. Luck, W. T. Lowe and T. E. Savin. Active—Fred Fox, L. M. Andrews, E. C. Arnold, J. R. Allen, W. J. Parkes, John Temple, C. H. Burks, D. L. Anderson and H. B. Strange.

Dr. Crutcher was one of the most popular residents of Pine Bluff. He was not only a good physician and surgeon, but he was popular in social and commercial circles and was a most progressive citizen. He had been in ill health for several years and had gone away several times in hopes that the change and rest would benefit him. Last fall he went to Florida and remained some time, but his condition was little improved upon his return, and for several months he was confined to his home, awaiting the inevitable end.

Book Reviews.

DORLAND'S AMERICAN ILLUSTRATED MEDICAL DICTIONARY.—A new and complete dictionary of the terms used in medicine, surgery, dentistry, pharmacy, chemistry, nursing, veterinary science, biology, medical biography, etc., with the pronunciation, derivation and definition, including much collateral information of an encyclopedic character. Seventh revised edition. By W. A. Newman Dorland, A. M., M. D. Large octavo of 1,107 pages, with 331 illustrations, 119 in colors. Containing over 5,000 more terms than the previous edition. Published by W. B. Saunders Company, Philadelphia, 1913. Flexible leather, \$4.50 net; thumb indexed, \$5.00 net.

A HISTORY OF LARYNGOLOGY AND RHINOLOGY.—By Jonathan Wright, M. D., director of the Department of Laboratories, New York Post-Graduate Medical School and Hospital. Second edition, revised and enlarged. Octavo, 357 pages, illustrated. Cloth, \$4.00 net. Lea & Febiger, Philadelphia and New York, 1914.

This work belongs to the type of medical book which is but rarely published, and then only in limited editions, which appeals to the physician for its literary and historic value rather than for its practical usefulness in his every-day professional life. It is a book

which will afford him pleasure and recreation in his leisure hours, and from which, nevertheless, he will obtain much that will be of value to him in his daily routine. It will broaden his point of view and give him a better perspective, not only of the specialty in which he may be engaged, but also of all branches of medicine, to see how the particular department reviewed herein has grown from crude beginnings to one of the most highly perfected of all the specialties. The author is not only a gentleman of eminence in the medical world, but also a litterateur and a historian, and he has portrayed his subject in an interesting and charming style. Beginning with Egyptian Medicine, and continuing until the advent of modern procedures, Dr. Wright has given the reader a story full of entertainment and historic interest.

THE READY REFERENCE HAND-BOOK OF DISEASES OF THE SKIN.—By George Thomas Jackson, M. D., professor of dermatology in the College of Physicians and Surgeons, Medical Department of Columbia University, New York. Seventh edition, thoroughly revised. 12 mo., 770 pages, with 115 engravings and six colored plates. Cloth, \$3.00 net. Lea & Febiger, Philadelphia and New York, 1914.

This work fully deserves the splendid success which it has attained. It very closely approaches the ideal for the purposes of the general practitioner, and for the dermatologist it is unexcelled for quick reference. Its clear and concise statements and its excellent illustrations and colored plates are features which have kept it in the forefront of dermatological books, and have brought it to its seventh edition. Each one has been an improvement over the previous ones, and the latest is the best of all. The opening sections are general, and cover the anatomy and physiology of the skin and diagnosis; these are followed by therapeutic notes and a table showing the best classification of diseases according to present-day views. The individual diseases are then taken up alphabetically, and each one is thoroughly considered. Treatment is brought out prominently, and in most cases the formulas that give the best results are included. This gives the volume a practical working value which would be impossible under any other system. Many of the old sections have been entirely rewritten. New articles have been included on vaccines, salvarsan and the use of *x*-rays. Many new illustrations and two excellent new colored plates appear in this edition.

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MONDAYS—

Gynecology, 1 to 2, Dr. M. D. Ogden.
Surgery and Genito-Urinary, 2 to 4, Dr. Anderson Watkins.
Medicine, 2 to 3, Dr. O. K. Judd.
Gynecology, 4 to 5, Dr. R. L. Saxon.

TUESDAYS—

Nose and Throat, 1 to 2, Dr. Robert Caldwell.
Surgery, 2 to 4, Dr. W. A. Snodgrass.

WEDNESDAYS—

Surgery, 1 to 3, Dr. Carle Bentley.
Gynecology, 4 to 5, Dr. R. L. Saxon.

THURSDAYS—Eye, 1 to 2, Dr. Frank Vinsonhaler.

Genito-Urinary, 2 to 3, Dr. Anderson Watkins.
Medicine, 2 to 3, Dr. O. K. Judd.
Nervous Diseases, 3 to 4, Dr. E. P. Bledsoe.
Dermatology, 4 to 5, Dr. Wm. R. Bathurst.

FRIDAYS—

Surgery, 11 to 12, Dr. Edwin Bentley.
Surgery, 1 to 3, Dr. Carle Bentley.
Proctology, 3 to 4, Dr. J. V. Falisi.
Gynecology, 4 to 5, Dr. Oscar Gray.

SATURDAYS—Ear, 9 to 10, Dr. John G. Watkins.

Pediatrics, 1 to 3, Dr. Morgan Smith.

Our alumni and the other physicians of Arkansas are urged to send their indigent patients to our clinics for treatment. There will be no fee charged for any operation, but each patient will be expected to make his own arrangement for hospital accommodations.

DR. MORGAN SMITH, Dean.

THE JOURNAL

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UNIVERSITY OF TENNESSEE



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150 feet south is site of new Methodist Hospital soon to be built. All hospitals, including St. Joseph, maintain more than 350 free beds available for Clinical instruction.

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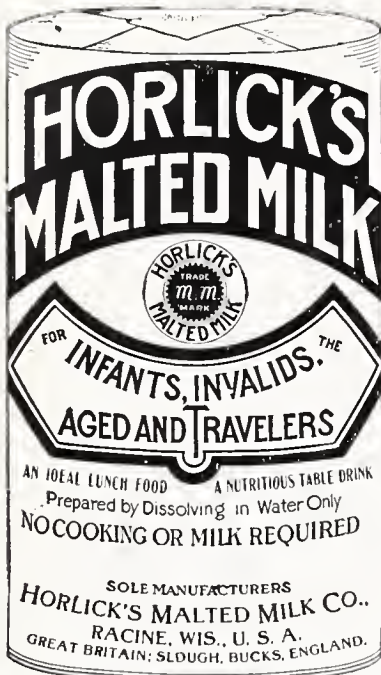
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Original Articles.

THE EVOLUTION OF KNOWLEDGE PERTAINING TO SYPHILIS.*

By Abner H. Cook, M. D.,
Hot Springs.

Accurate knowledge of syphilis begins with the last decade of the Fifteenth Century. It is true that the story of venereal disease is handed down to us through myths that antedate the records of our civilization, prescriptions to alleviate its pangs are contained in the papyri of ancient Egypt, and the satyric and erotic poets of Greece and Rome incorporated it into their licentious songs and rhymes! but this was venereal disease—an undifferentiated mass of diseases affecting the genitalia.

It is the purpose of this paper to recount the steps by which medical men have reached their present status of knowledge pertaining to syphilis; not to enter the debatable field of its origin, other than to say that I adhere to the belief that syphilis has existed throughout civilization, and that the concurrent return of Columbus from America with the advent of the great pandemic of the Fifteenth Century, while truly remarkable, was but a coincidence.

The dearth of literature pertaining to this disease, and great ignorance of its clinical manifestations, prior to this time, rests partly upon the fact that through all ancient and mediaeval times, due to an inversion of the moral sense, it was considered disgraceful to confide to medical men the existence of disease affecting the genitalia. Also a physician considered it beneath his dignity to treat such. We wonder at this prudery when we know of the licentiousness and loose living of ancient

Rome, and of the low standard of morals in Europe during the middle ages.

Another cause of equal importance was the ignoring of etiological factors in the study of disease. When a diseased condition was observed, it mattered little how it originated; if it was acute it was a plague, chronic a leprosy; the existing pathology was studied, recorded and treated, each individual symptom being an entity. Chronological order was disregarded.

Of the literature prior to the great pandemic, all that is worthy of note is the observation of Gerard de Berry of Paris, in the Thirteenth Century, that venereal disease sometimes produces constitutional symptoms and body lesions; unfortunately, he did not describe these. The Biblical description of diseases often supposed to be syphilis, especially the malady described in the thirteenth chapter of Leviticus, are very suggestive, but no one can say definitely that they are syphilis.

The list of writers from 1493 to 1700 is long, but their ideas are hazy, errors numerous, and observations so devoid of accuracy that the work of only a few is worthy of consideration.

Diaz de Isla, a physician of Barcelona at the time of the return of Columbus, was an early observer. About 1510 he wrote of the disease, and was of the opinion that it was brought from the newly discovered lands beyond the sea. The error in the supposition that syphilis was conveyed to Europe from Haiti by the men of Columbus, which is extensively held today, will be found in the great similarity of syphilis and yaws. This latter disease is, and was, widely prevalent in the West Indies and tropical regions of North and South America.

When the pandemic swept through Europe, devastating armies, polluting royal families, and invading the sanctity of monasteries and nunneries, its venereal origin was well under-

*Read in the Section on Dermatology and Syphilology of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

stood. I can find no record of the first announcement that syphilis was disseminated through sexuality; it seems to have been general information. All else was chaos, even unto name.

Many were the names applied to this silent reaper of the lustful and sensual, illicit worshipping at the shrine of Venus. It usually took the name, in each locality, from the city or country from which it was supposed to have been imported. William Dunbar, about 1500, wrote a poem, dedicating it to the queen of England, in which he dubbed the malady "pockis"—hence our present pock. The name syphilis originated as a character in Girolamo Fracastoro's poem "*Syphilidis, sive Morbi Gallici, libri tres.*," published in Verona in 1530.

Jean Fernel was the first to place the study of syphilis upon a rational basis by pointing out the necessity of an epidermal lesion preceding constitutional manifestations. Fernel was born in Clermont, France, in 1496, and was evidently a great man; his achievements were many and divers. Besides his medical work he made valuable contributions to mathematics, and at the close of his life, in 1558, had amassed an immense fortune—the greatest of all achievements for a medical man.

Naturally, the skin lesions were the first signs of constitutional invasion to be recognized. The Italian, Leoncino, described the characteristic color in 1496. Torella the following year gave a more accurate account and divided the skin lesions into moist and dry. In 1503 John of Vigo pointed out the absence of subjective symptoms; Massa, in 1536, remarked upon the latency of some of the skin eruptions and their reappearance; and Fallopius, the anatomist, in 1555 likened the color of the eruptions unto raw ham, and in 1564 classified the skin manifestations into five groups.

Hereditary syphilis early attracted attention. Paracelsus, the famous German physician, living from 1490 to 1541, appears to be the first to write of the condition, committing the idea to print in 1529. Rondelet (1507-1566) made numerous accurate observations, and Ambrose Pare (1510-1590) called attention to the infection of children by nurses and the apparent rarity of infection of the offspring through the father, making the statement that this never occurred. Von Rosenstein wrote of delayed hereditary syphilis, and Sanchez of Russia laid down rules regarding the inheritance of syphilis, some

of which hold today. Of the recent writers, Sir Jonathan Hutchinson of England has contributed more than any other one man to the clinical study of hereditary syphilis. It is said of him that during his long life (1828-1913) he saw over a million cases of syphilis and observed the disease through four generations.

That syphilis is conveyed extragenitally was first observed and reduced to writing by G. Horst, who reported in 1628 one hundred cases transmitted by cupping. A few years later Palfey of Geneva called attention to the infection of midwives and physicians by lying-in women, also through gynecological examinations and while otherwise professionally engaged. Colle and Musitano, in the latter half of the Seventeenth Century, reported inoculation by kissing and drinking vessels.

Syphilis of the heart was first reported by Lancisi (1654-1720); Astruc knew the condition and wrote of it in 1736; Morgagni, in 1766, attributed aneurysm to syphilis, and, later, Lanec contributed much. Prof. Clifford Allbutt of Cambridge University, in 1870, first described the microscopic appearance of syphilitic disease of the arteries, and four years later Hlubner published his classical monograph.

Our knowledge of visceral syphilis is the result of the combined work of all the great pathologists, syphilographers and clinicians. No one man, or group of men, can be said to have established the idea or exhausted the subject. Leoncino, in 1497, referred to the internal organs being affected by syphilis; Van Hutton and Paracelsus said that syphilis was the cause of certain visceral conditions, but they did not believe it to be the sole cause. Fallopio and Botallo wrote of syphilitic bone disease.

Morgagni, in 1766, was the first to refer definitely to syphilis of the brain, stating that gummata occurred not only upon the bones of the cranium, but within the brain substance; this writer also described aneurysms of the smaller vessels of the brain. Leoncino, in 1497, alluded to syphilis as an etiological factor in paralysis; and Astruc, in his book, "*De Morbus Veneris*," published in 1740, speaks of syphilis as the cause of functional disease of the nervous system.

In 1767 the progress of syphilology received at the hands of the great John Hunter a blow from which it did not recover for nearly a century. Hunter was the greatest physician of his day; born in London in 1728,

at the age of thirty-nine he was made a fellow of the Royal Society. He was a physiologist and anatomist of renown, a surgeon of highest repute, and a teacher of marked ability, Jenner and Scarpa being numbered among his pupils. The British government recognized his ability by making him a surgeon-general in the army and later he became surgeon-extraordinary to the king.

Francis Balfour, Charles Hales, W. Ellis and others had announced the separation and identification of the initial lesion of syphilis from the other venereal diseases when Hunter came forth with the result of his experiment. He had inoculated himself with what he thought to be pus from a purulent case of gonorrhea. Not only did he develop gonorrhea, but this was followed by the constitutional symptoms of syphilis. What argument could overthrow such conclusive experimentation in the hands of the greatest living authority? Not only did Hunter thus impede progress, but in 1790 he was teaching that syphilis did not affect the internal organs or the nervous system.

All was stagnant, and even retrogressive, until Philippe Ricord, the father of modern syphilology, began his studies and researches. Ricord was born in the Southern city of Baltimore, Md., and at the age of twenty, in 1819, left America to study medicine in Paris; there he studied, worked, became great, and died (1889). The work of this great master commenced in 1831 at the Hospital du Midi, in the service of which he continued until 1860. But few problems were left untouched by him, however; time allows only brief mention of the more important, which were as follows:

(1.) From 1831 to 1837 he performed 2,500 inoculations by which was proven that inoculation with gonorrheal virus was not followed by syphilis, thus undoing the teachings of Hunter.

(2.) The classification of syphilis into primary, secondary and tertiary stages.

(3.) Differentiation of chancre and chancreoid.

(4.) Description of vaginal and uterine chancres.

(5.) The dual existence of chancre and gonorrhea.

(6.) The existence of urethral chancre.

(7.) The rarity of reinfection.

This work was a stimulus that has not yet spent its force, although new impetus has been added. Von Waller and Wallace proved the contagiousity of the secondary lesions; Clere and Rollet the dual existence of gonorrhea and chancreoid, chancre and chancreoid, and chancre, chancreoid and gonorrhea; and Rollet's discovery of the mixed chancre was important.

Alfred Fournier, the pupil of Ricord, is the connecting link between the past and present. Fournier's chief claim to lasting prominence as a syphilographer is based upon his recognition of diseases of the nervous system due to syphilis; these he places in a fourth group, adding to Ricord's classification parasyphilis; thus was established the fact that syphilis is a potent factor in the etiology of paresis, locomotor ataxia, and other affections of the nervous system. Much has been added to the knowledge of syphilis as it pertains to the public health by this writer, and he established the principle of treating the disease and not its symptoms.

The clinical studies of Sir Jonathan Hutchinson are classic, and there is hardly a field in syphilis that has not been influenced by them.

TREATMENT.

Almost every drug known to man has, at some time or other, had its advocates in the treatment of syphilis. I shall mention only those that are of true value, namely, mercury, potassium iodide and arsenic.

The advent of mercury in the treatment of syphilis seems to have been concomitant with the appearance of the great pandemic of syphilis in the Fifteenth Century. Most of the old fellows preferred the inunctions, with which great success had been obtained in the treatment of parasitic skin diseases and leprosy; this is a faint suggestion that the systemic invasion of syphilis was confused with leprosy. Biringarius da Carpi of Bologna, in 1500, was an earnest advocate of this method and seems to have taken the lead in its defense.

Ingestion had some followers; they gave calomel in doses of two to four grains daily, and also metallic mercury, killed with honey, in doses of six to seven grains twice daily until all objective lesions were gone. This was especially advocated by Donald Munro in 1780.

Mercurial plasters were early used, their merits being warmly set forth by John of

Vigo. John was the originator of a cerate that he used as a plaster, and by which he achieved much fame in the treatment of syphilis. This cerate contained, besides twelve drugs of common usage, swine's grease, calves' suet, the fat of vipers, six quick frogs, worms washed in wine, gold, and quicksilver quenched with spittal. This was surely a witches' chaldron.

In the Seventeenth and Eighteenth Centuries there was a reaction against mercury, and it grew into disrepute on account of the extent to which it was pushed and the adjunct measures deemed necessary. The guide to quantity and extent of treatment was salivation; it was considered essential for good salivation to exist as long as lesions were present. Good salivation was considered four or five pounds of thick, sticky saliva in twenty-four hours; Boerhaave, the great Dutch clinician, considered one hundred pounds of saliva the proper amount to be expectorated in thirty days.

The adjuncts to this treatment were sweating, strict diet, abstinence from baths, avoidance of fresh air, compelling the victim to remain in a closed room, and many other disagreeable and unnecessary procedures.

As the result of such heroic treatment the inferior maxilla and sternum sometimes sloughed and other toxic symptoms arose, resulting even in death. From this was fostered the popular belief, which we now sometimes hear the remnant of, that mercury will get into the bones and cause them to decay. This idea evolved to the extent that syphilitic bone disease was thought by many to be the result of past mercurial treatment, and even some physicians taught that all tertiary lesions were due to mercury.

William Ferguson saved the day for mercury by advocating rational dosage, and demonstrating that pyralism is not only nonessential, but undesirable.

Hebra (1816-1880) is entitled to priority in the use of mercurial injections; Scarenzo tried them in 1864, and in 1866 Lewin was forthcoming with his results. Injections did not become popular until recently on account of pain, induration and abscess; this we are just learning to avoid. Intravenous injections of mercury were used by Prof. Baccelli in 1893; later Mr. J. Ernest Lane of London conducted valuable investigations with this method; and the late Eugene C. Hay of Hot Springs concluded that the therapeutic results did not justify the procedure.

In 1834 Wallace of Dublin introduced the iodide of potassium into the therapy of syphilis. The great value of this drug was soon recognized, and, for a time, it threatened the position of mercury; but after matured experience it settled down to its proper position.

MICROBIOLOGY.

In 1837 Donne, a Frenchman, announced the discovery of an organism in genital chancres of both males and females. His observations, deductions and conclusions were of the highest scientific order and would do credit to the workers of today. Donne failed to find these organisms in extragenital chancres, therefore correctly concluded that they were not concerned in the etiology of syphilis, but thought that they might be of some diagnostic value. The organism seen by Donne, very likely, was the *spirocheta refrigens*.

It was 1885 before the next work of importance was announced. In that year Lustgarten called attention to a bacillus that he had found in chancres and gummata. Dautrepont and Schultz confirmed Lustgarten's work, and Marcuse, who was associated with Niesser, reservedly subscribed to it. After a short period of heated controversy it was concluded that Lustgarten had seen the smegma bacillus in specimen from chancres, in the deep lesions he had confused tubercles with gummata, or there was a concomitant tubercular invasion.

Kassowitz and Hochsinger, in 1886, found a streptococcus that they thought to be the cause of syphilis; and the following year Disse and Tagouchi groomed a diplococcus. Von Niessen in Germany and Query in France attempted to find the germ of syphilis by methods of cultivation. In 1902, by a unique method of cultivation, Joseph and Piorkowski isolated their bacillus, which was discredited by the inoculation of several physicians, unaffected with syphilis, with the organism, and obtaining negative results.

Stasso, in 1901, and Siegel, in 1902, described different organisms, which they classified as protozoa, claiming them to be the cause of syphilis.

Almost pathetic is the work of Bordet and Gengou. In 1903 they communicated to the Pasteur Institute of Paris the discovery in an indurated chancre a very fine spirillum, rolled like a cork screw, staining faintly, and unassociated with any other organism. After carefully searching five other chancres and

numerous specimens of blood, inguinal glands and papules from known syphilitics, and obtaining negative results, they became discouraged and abandoned the search. They undoubtedly saw the pale spirochete of Schaudinn. Metchnikoff followed up this work most thoroughly, and, failing to find any suggestion of the organism seen by Bordet and Gengou, announced that syphilis was not due to a spirochete—a position from which he hastily retreated two years later.

Work of great value was accomplished in 1903 by Metchnikoff and Roux when they succeeded in inoculating an anthropoid ape with syphilitic material. This made animal experimentation possible.

In 1905 a commission, headed by Prof. F. E. Schultz of Berlin, under the auspices of the German Academy of Science, was formed to study the bacteriology of syphilis and more especially to confirm the work of Siegel. Fritz Schaudinn, a young zoologist and leader in the study of protozoology, and Dr. E. Hoffman, a syphilographer of renown, were selected to undertake the work. The most remarkable feature of their research was the ease with which they found the spirocheta pallida after men like Metchnikoff, Gengou and Bordet had conducted extended researches that terminated in failure.

The first patient was seen by Schaudinn and Hoffman on March 3, 1905, and their paper, demonstrating clearly the organism of syphilis, was dated April 10 and published in May. The work was rapidly confirmed; on May 16 Metchnikoff and Roux reported, before the Paris Academy of Medicine, the finding of Schaudinn and Hoffman's organism in specimens taken from an ape previously inoculated with syphilitic virus. Levaditi exhibited at the same meeting specimens obtained from the bulla of pemphigus. In less than two years there were over five hundred published confirmations.

In 1911 Noguchi, of the Rockefeller Institute for Medical Research, announced the successful cultivation of the spirocheta pallida, which was second in importance only to the discovery of the organism. In the same year this worker practically applied his discovery by devising an emulsion of the cultivated organisms, under the name of luetin, to be used as a skin reaction in the diagnosis of syphilis.

SERUM DIAGNOSIS.

In 1901 Bordet and Gengou announced their discovery of complement fixation; and in 1906 Wassermann applied the phenomenon

to syphilis, the result meeting all of his theoretical expectations. Niesser and Bruck were the first to confirm the work, and other investigators followed in rapid succession. These confirmations resulted in numerous modifications, the principal one used in America being Noguchi's, which was announced in 1909.

ARSENICAL THERAPY.

It has long been known that arsenic is of definite value in the treatment of syphilis; however, it was not fully decided whether its value rested upon the direct effect on the disease or as a tonic, building up the general condition of the patient, thus increasing body resistance. The latter opinion was generally held and arsenic, in one of its many forms, was frequently between courses of mercury. Very seldom was it used to the exclusion of mercury as, unfortunately, was potassium of iodide.

The chapter on arsenic as a specific opens with atoxyl. F. Blumenthal was the first to use it in the practice of medicine, and in 1902 demonstrated that atoxyl was forty times less toxic than Fowler's solution. W. Thomas of England introduced it into the treatment of trypanosomiasis in 1905; after this many workers joined in these researches, including the great Koch. Uhlenhuth first suggested and tried atoxyl experimentally in syphilis. In December, 1906, this investigator, with Hoffman, Roscher and Weidanz, announced the prophylactic and curative value of atoxyl in apes, inoculated experimentally with syphilis, and in rabbits with syphilitic disease of the cornea. Niesser confirmed this work and announced that it was much more efficient when administered in one large dose. Shortly afterward Salmon, Lassar, Hallopeau and others reported curative results with atoxyl in the treatment of human syphilis. Unfortunately, the drug was shown to produce nervous lesions, exhibiting a predilection for the degeneration of the medullary sheaths of the optic nerve, and consequently was given up, but not until replaced by arsacatin, produced by Ehrlich.

Arsacatin was the result of the work of P. Ehrlich in his endeavor to retain the therapeutic value of atoxyl and eliminate its toxic qualities. It was a complete failure. Many observers soon reported evidences of toxicity in doses short of curative; these symptoms included headache, nausea, vomiting, vertigo, abdominal pain, peripheral neuritis, nephritis and visual disturbances. Oppenheim and oth-

ers reported that it was more prone to produce optic atrophy than atoxyl. Uhlenhuth, in 1910, reported auditory disturbances, from degeneration of the auditory nerves, that resulted in deafness. In Africa, in fifty-one cases of sleeping sickness treated with arsacetin nine became blind and two deaf.

In June, 1907, Uhlenhuth proposed the use of a combination of atoxyl and mercury in the treatment of syphilis, which resulted in the use of the atoxylate of mercury. Many have testified to the value of this drug, and all that has prevented its becoming more popular is the greater value and safety of other preparations.

Hectine started with much promise, but its toxicity soon became manifest.

In the fall of 1907 soamin was employed in England. It was supposed to be entirely free from toxic secondary effect and contain a more constant arsenic content than atoxyl. Later proof of its being one of the causes of optic degeneration was presented, and also that it showed but little improvement on atoxyl therapeutically.

Behind these scenes Paul Ehrlich was working, and to him is due the greatest credit. He worked out the chemistry of atoxyl and observed its use in the treatment of trypanosome diseases. Using this as a starting point, he worked to prevent "the uncertain and doubtful action of atoxyl in trypanosome diseases by means of appropriate alterations of the arsenic fast residue" and "to procure a reliable arsenic drug of which there could be no doubt."

The first product of this series of researches to be used therapeutically was arsenophenylglycin; this was found to be of too great toxicity by Uhlenhuth and others. In October, 1910, Uhlenhuth reported that in treating sleeping sickness injurious effects, consisting of cutaneous eruptions, paralysis, emaciation, prostration, and even death, had been observed.

In the summer of 1909 Ehrlich perfected his preparation, salvarsan, and it was clinically tested by Prof. Alt in September, 1909. To record the spread of the use of salvarsan and its offspring, neosalvarsan, would be superfluous.

NERVOUS DISEASE.

F. Esmarch, in 1857, first called attention to the frequency of syphilis in paretics; Fournier's work in the study of locomotor ataxia has been mentioned. With the confirmation

of these observations, especially by Erb, who collected histories of 1,100 cases of tabes extending over a period of twenty-five years, and 10,000 nontabetics as a control and arrived at the conclusion that syphilis was a potent etiological factor in tabes, the idea of meta or parasyphilis has rapidly progressed.

Parasyphilis means a pathologic condition resulting from, but not itself active, syphilis, and usually refers to the nervous system. It was supposed to have been the debris left in the path of the storm. The first to record dissension to this and express the correct idea is a physician that this society can proudly call member, and the State of Arkansas, citizen and servant. I refer to Dr. J. L. Greene, superintendent of the State Hospital for Nervous Diseases, Little Rock. In a paper before the Nebraska State Medical Society, in May, 1898, the idea that paresis is an active syphilitic process is clearly announced and his belief in his idea demonstrated by the line of treatment used.

This was far in advance of laboratory findings, being purely clinical. Quinke, in 1882, first called attention to the diagnostic value of cellular exudates, and since much attention has been centered around the cerebro-spinal fluid. The finding that an excess (over five to the cubic centimeter) of lymphocytes in the cerebro-spinal fluid is absolute proof of syphilis in the central nervous system was the first laboratory evidence that parasyphilis is active syphilis. Conclusive evidence came when Noguchi and Moore published their research, "A Demonstration of *Treponema Pallidum* in the Brain in Cases of General Paralysis," dated January 11, 1913. Later these investigators demonstrated the spirocheta pallida in the central lesions of locomotor. Henry J. Nichols has just appeared with an article pointing to a special strain of spirocheta pallida that exhibits predilection for the nervous system.

DISCUSSION.

Dr. A. U. Williams (Hot Springs)—I have not any criticism to make of Dr. Cook's paper. It is an excellent one. He has amassed an array of facts which are worthy of preservation by anyone who is interested in the subject of the history of syphilis. He has been to considerable pain and labor to collect these facts and statistics together. His paper is worthy of preservation. I hope to see it published in The Journal of the Arkansas Medical Society, and shall keep the number for future reference.

Dr. Loyd Thompson (Little Rock)—I think the terms parasyphilis and monosyphilis are fast becoming obsolete. Since the observations of Noguchi and Moore in demonstrating the treponema in the brain of paretics and in the spinal cord of tabetics, it has

been proven beyond the shadow of a doubt (and these observations have been confirmed by numerous other investigators) that syphilis is syphilis, and that it is not parasyphilis or monosyphilis; that, if the paresis, cerebro-spinal syphilis, tabes or tabo-paresis are active, syphilis appears in the nervous system.

Dr. Cook (Essayist)—I have nothing further to say, but that it is a fact, and I have tried to bring out in the paper that the terms parasyphilis and monosyphilis are fast disappearing.

MALIGNANT DEGENERATION OF SKIN BLEMISHES.*

By William R. Bathurst, M. D.,
Little Rock.

"It's only a wart."

"It's only a mole."

In such light terms it is customary for those having such blemishes to regard them. It is probably true that not five laymen in a thousand ever regard a wart or mole seriously until malignancy develops. While, of course, no such proportion exists among the medical profession, yet it is true that a very large percentage of physicians, especially such as have not made some investigation and study, fail to attach the importance of eliminating such blemishes which the subject demands.

Dr. Joseph C. Bloodgood, in a paper on "Cancer Control," before the Clinical Congress of Surgeons at Chicago, said: "There is always a pre-existing local defect which is benign and in which later there may be a cancerous development. Long experience and investigation seem to show that cancer never begins in healthy tissue."

A wart does not necessarily become malignant. It may exist for years—for life, for that matter—and remain innocuous or disappear, as, indeed, is the case more frequently than otherwise among children.

On the other hand, a wart or mole may suddenly begin to enlarge and soften and presently develop into a malignant ulcer, with sarcomatous degeneration, or it may take the form of an epithelial carcinoma. The apparently harmless blemish allowed to remain for years and giving no inconvenience, becomes a serious menace. The authorities generally agree that this condition is more likely to appear after the age of forty; but it is not safe to place too much stress on this and so neglect the elimination of warts in

those younger. It would appear that, while malignancy very frequently develops without any apparent exciting cause, yet injury to a wart seems to precipitate the degeneracy of the tissue which perhaps may never have occurred but for such injury.

As evidence of this fact that of eighteen cases—three of them fatal—reported from the St. Louis Skin and Cancer Hospital, no less than eight seem to have been precipitated by some injury to the wart or mole, which, prior to the injury, in each case had been innocuous, giving no pain nor showing any sign of enlargement or malignancy.

I have referred to the general opinion that this degeneration of skin blemishes is more common over the age of forty. This seems to be borne out by the fact that in the eighteen cases referred to, the ages of the patients ranged from fifty-four to seventy-eight years of age at the time of admission to the hospital. But, as heretofore stated, it is quite erroneous to suppose that such malignant degeneration of warts, moles and nodules cannot occur before that age is reached. To illustrate this fact I wish to present a photograph (Fig. 1) of a patient who recently

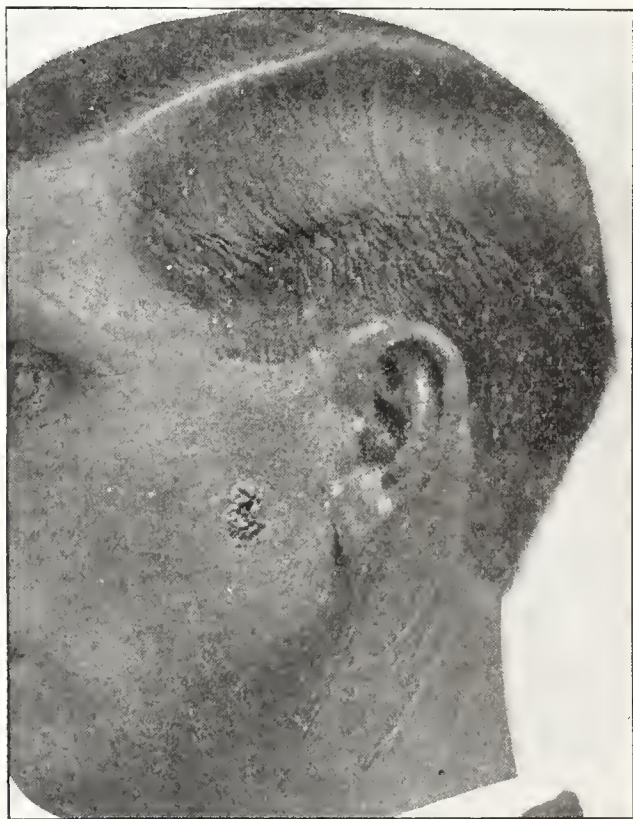


Fig. 1—Epithelioma of eight years' duration. Developed from cutting a small mole while shaving.

*Read in the Section on Dermatology and Syphilology of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

came under my care. He is now thirty-two years of age. Eight years ago, while shaving

his cheek, he cut a mole the size of a pin head, which slowly increased in size until a well-developed epithelioma resulted.

The warning not to stress the theory for the forty years age limit is necessary, because the prevalence of this belief frequently has led to wrong diagnosis in cases which have ended disastrously for the patient. It also affords further argument for the elimination of moles and warts regardless of the age of the person.

There is still another reason for extirpation of warts and moles in the young. In many of the cases recorded of subjects in advanced age the history of the original wart dates back to childhood—in many cases as long as the subject can remember. Therefore, to extirpate warts, even in children, will avert possibly serious results later in life.

It is hardly necessary to point out that the wart, elevated as it is above the surface of the skin, is peculiarly susceptible to such injury as being cut by a barber if on the face, and from innumerable causes if on the hands, in the course of pursuing various manual occupations. Dr. E. A. Babler of the St. Louis Skin and Cancer Hospital records a case of a patient who persistently refused operation on a mole on his left temple. The result was that it became malignant, one eye and practically one side of his face were destroyed.

These changes in face blemishes constitute no recent discovery. Half a century ago Collins called attention to their tendency to become ulcerous. Virchow and Billroth described the tendency to sarcomatous change, and Unna, twenty years ago, contended that most of such warts and moles were epitheliomata. In view of these authorities, it is a little surprising that in a matter entailing such peril there still remains so much diffidence on the part of the practitioner and ignorance on the part of the subjects.

Just to what extent malignancy follows what are regarded as harmless blemishes is in evidence in a report from the London hospital. The records for a period of twenty years show twenty-six cases of melanosarcoma situated in the skin, probably originated in

pigmented moles or nevi. This affords an unanswerable argument for prompt removal when in the harmless stage.

Attention has been called to the fact that warts and other blemishes raised above the surface of the skin are peculiarly susceptible to injury which precipitates the malignant development; but it must be borne in mind that of the eighteen cases occurring in the St. Louis hospital, only eight were traceable to injury. That is a large proportion; but it leaves the larger proportion of ten to eight in which no such injury occurred which became malignant without any apparent exciting cause. The tendency to malignancy is due to the structural characteristics of such blemishes. They consist of a superfluous tissue, without function or orderly arrangement, and because of this the cells composing them do not possess the stability of the cells of normal tissue; but, on the contrary, show a tendency to change. They sometimes remain in statu quo for many years, then suddenly, perhaps, disappearing never to return; but too often changing to a malignant form, giving years of pain, trouble, permanent disfigurement, and, in some cases, causing death. If operation be not resorted to remove warts and moles so long as no material changes occur in them, certainly there should be no delay after any change is noted; for it is held by some of the best authorities that just as soon as such blemishes begin to enlarge, malignancy has already set in. Although it may not be outwardly apparent, the enlarged surface is a precursor of the later softening and subsequent malignancy.

In diagnosing epithelioma, the conditions to be considered are the character of the growth, and its beginning from a mole, nodule or a scaly spot followed by ulceration. The border hard and waxy, with a sort of roll-like elevation, and later there is a viscid discharge, sometimes mingled with blood. Progress is generally slow and the lesion is usually situated about the face, ears, eyelids or muco-cutaneous junctions at points of irritation. A very common blemish is the condition known as keratosis senilis and well demonstrated in the accompanying photo-

graph (Fig. 2), which shows a case of keratosis with the beginning of epithelioma. This

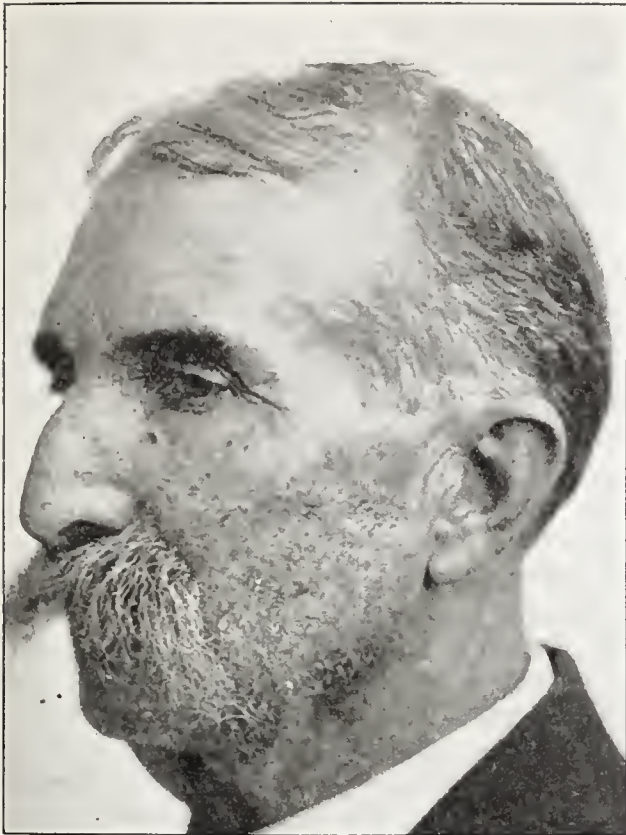


Fig. 2—Keratosis senilis, scurfy and sealy spots and patches on the cheek, with degenerative changes, tending to become epitheliomatous; small epithelioma under left eye developed from a similar spot.

patient gave a history of a few freckle-like spots appearing on his face, which gradually thickened, forming a slight yellowish-brown crust, accompanied with a slight pricking sensation. It finally terminated in several well-developed epitheliomata. The treatment includes excision, euretting, actual cautery, x-ray, radium, electrolysis, carbon dioxide and powerful caustics in selected cases.

Von Bergman asserts uncompromisingly that cancers on the skin never exist without the previous existence of scars, fistula, eczema, seborrhea, warts or moles, and this theory is endorsed by Volkmann and other eminent authorities. Here again we have the wart or mole, so generally held as trivial, as the origin of the most ravaging of diseases.

The conclusions to be arrived at, therefore, are:

(1) That warts, moles, nodules and inflammatory processes upon the skin are likely to undergo malignant changes.

(2) That absolute removal is essential, and this regardless of the age of the patient.

(3) That the laity be educated to the importance of removal and the danger of malignancy.

(4) That the medical profession generally become more alive to the importance of elimination of apparently innocuous blemishes and impress on their patients the necessity of prompt removal.

DISCUSSION.

Dr. Rinehart (Camden)—I am very much interested in that paper. I would like for the essayist to tell us if anything can be done in port wine marks. I don't know if they even undergo a malignant course. They may not come, strictly speaking, under the head of his essay, but for the last ten years I have been trying to find by letter a man who would undertake to treat port wine marks with some degree of success.

Dr. Bathurst (Essayist)—In answer to Dr. Rinehart's question about the removal of port wine stain of the skin, a congenital growth of blood vessels, would say that in the small lesions surgery, electrolysis and the application of carbon dioxide will give gratifying results, but there is no effective remedy for the removal of the extensive patches that extend over a large portion of the body. However, I would like to say that in conjunction with carcinoma or epithelioma of the skin, and to endorse an opinion given by Ribberts that "carcinoma originates as a result of sub-epithelial inflammation, which is caused by epithelial products, and which diminishes the differentiation of the epithelium and liberates the proliferating growth." In all cases of superficial epithelioma of the face that I have seen, there is the association of seborrhea. I am of the opinion that the organism of seborrhea is the irritant that brings about the penetrating growth of epithelial cells. The more the epithelium extends into the connective tissue, the more does it lose its physiological connection with the original epithelium, and the more does it shunt itself off, becoming transformed into independent, parasitic, cancerous epithelium.

SYPHILIS OF THE KIDNEYS, WITH REPORT OF CASES AND TREATMENT.*

By E. H. Martin, M. D., and
E. A. Purdum, M. D.,
Hot Springs.

The subject of visceral syphilis, while of ever-increasing interest, has been referred to very briefly in the text-books and systems of medicine presented to the profession during the past ten years.

In our search for knowledge concerning renal syphilis we have been unable to find anything but general statements and various classifications almost as confusing as the individual ideas concerning the several forms

*Read in the Section on Dermatology and Syphilology of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

of arthritis. Therefore we feel fully justified in presenting a brief classification in accordance with observations made in Hot Springs.

The kidneys may be affected in five ways while the patient has syphilis:

First. Through irritation from toxins in the early secondary stage. This probably occurs to some extent in all cases of secondary syphilis with skin involvement. Nearly all of the early rashes and macular or pustular secondaries are accompanied by albumin in the urine. This is also seen in many acute diseases and is to be expected here. Very few such cases show casts and the condition is not usually important and subsides after any sort of specific treatment.

Second. There is often an acute nephritis following extensive secondary skin involvement just as we see it following scarlet fever. Here we find the casts and albumin along with the usual symptom complex of acute nephritis. This acute nephritis may subside after running a definite course, or it may become subacute. Mercury is very poorly eliminated when this condition exists, and ptyalism occurs very promptly, especially if the mercury be given by intramuscular injections.

Third. We may have a true acute syphilitic lesion of one or both kidneys producing a hemorrhagic nephritis with many casts and pus cells, but a relatively small percentage of albumin. It is this type, which comes on acutely without a predisposing cause such as exposure or alcoholism, that we wish to call attention to. These are the cases which either die or recover within a few days. It is in these two forms of renal syphilis that we believe one and only one line of therapy should be employed.

There are two principal types of chronic nephritis which may occur in lues:

First: That due to an extra-renal focus and resulting purely from toxemia.

Second: The type existing in any form of prolonged infection of the kidney substance or the results of such infection such as sclerosis, amyloid degeneration, etc.

Syphilis does not always affect the kidneys in such a clear-cut manner, the conditions merging in many cases. Regardless of the classification, the treatment is the same for all.

We have found salvarsan to be much better tolerated by the kidneys, whether sick or well, than is mercury or the iodides. There-

fore, as it is also a *cure* and not merely a treatment, we have during the past three years used salvarsan alone in such cases.

When salvarsan was first given to us we were advised that many conditions made its use contraindicated. For instance, those suffering with cardiac insufficiency, especially that form due to muscular degeneration, were denied the treatment. Again, pulmonary disorders were looked upon with disfavor. Various cases of brain syphilis were denied their only chance for help. These conditions have since been found to have no bearing at all on the administration of salvarsan. But those organs which were to be mostly concerned in the actual handling of the drug after injection were given relatively slight consideration. Few workers seemed to recognize at that time that the principal role in its successful employment was to be played by the kidneys. It was not until deaths followed its use in the hands of expert men that real investigation was begun as to the time and manner of salvarsan excretion in man.

To Wechsehmann of Berlin we owe our most recent and accurate knowledge. Beginning at the bottom, he first sought the help of pharmacologists and chemists to determine the effect of salvarsan and its decomposition products upon the kidneys.

In the various experiments performed it was found that arsenic belongs to the class of poisons which affect the capillaries of the kidneys chiefly, as does cantharides, while mercury damages the kidneys by a very severe action upon the tubules as does the salts of chromium. It was also found that in many cases the excretion of salvarsan by the kidneys begins even before the act of administration into the vein is complete, and that the major part of the dose is excreted in from six to twelve hours usually. But we must not confuse the action of arsenic upon the kidneys with the action of salvarsan upon the kidneys. Salvarsan, as such, has no deleterious effect, but when its secretion is delayed, then we get the effect of the decomposition products formed while it is floating around in the blood for several days or more.

What, then, would be the rational drug to use in the case of a kidney already damaged by disease? Certainly, in the acute hemorrhagic cases of which I have spoken, we would not use a drug to prostrate the already fast failing kidneys, but rather a moderate

dose of the more powerful salvarsan which would be quickly excreted without adding to the pathology.

These cases of acute hemorrhagic nephritis due to syphilis have hardly a single chance to recover under mercurial medication in any form. If we get enough mercury into the body to check the disease, we have long since produced a death-dealing blow to the kidneys.

One typical case will serve to illustrate:

Patient (L. D. W.), male adult, age 20. Mucous patches in mouth and throat and fading eruption on body. Temperature from 99.2 F. to 101.4 F. General malaise, moderate anaemia. Pulse, 102. Urine acid, specific gravity, 1.014; heavy cloud albumin on boiling. Also many hyaline and granular cases with moderate number of pus and red blood cells. Mild mercurial inunctions were given with rapid ptialism resulting. Soamin and small injections of mercury then used with same results. After nearly one month had passed with almost no improvement, patient left the Springs and death occurred a few weeks later. It is plain that in cases like this, before the days of salvarsan we had only to choose between death from an accumulation of mercury or from the progressive destruction of renal tissue.

In marked contrast to the above is the report of a similar case treated with salvarsan. Patient (B. C.), male adult, aged thirty years. Contracted syphilis one year before, but has worked regularly until few days past, when began to feel like he was swelling all over and getting weak. Has also had moderate fever. Present condition shows ulcers over body. Generalized moderate subcutaneous oedema with weakness and shortness of breath. Temperature, 99.2 F. Urine shows many red blood cells, few pus cells, many hyaline casts and cylindroids. Albumin very heavy on boiling. Treatment consisted of three decigrams of salvarsan intravenously on the afternoon of July 9. The next morning patient reported his reaction as follows: Felt chilly after leaving office and fever was higher than when on the table; vomited once and had two large, loose bowel movements. Urine at this time showed great reduction in blood. On July the 15th, or five days after his salvarsan was given, patient's urine had resumed its normal color, contained no albumin, and specific gravity was 1.018. Another dose of seven decigrams was given one week later and this was followed by a mild reac-

tion. The patient left to go to work, although he was advised to take more.

Other cases similar to the examples cited might be given at length, but it is our belief that these are sufficient to illustrate to you that at least one form of syphilitic nephritis exists in which there is only one remedy that will produce a cure. Equally brilliant results have been obtained in other forms of renal syphilis and we wish to emphasize the fact that with salvarsan, when sufficiently and properly given, they are cured and not simply treated.

Of course, in these cases, as in other grave conditions, we begin with small doses. This is to guard against the danger of overwhelming the kidneys during the first few hours after administration. If a large dose of the drug is suddenly thrown upon the kidneys they may be so much overtaxed that anuria will result. When this happens the salvarsan gradually decomposes and the patient becomes prostrated. We have never been so unfortunate as to see such an occurrence, but it has happened in the practice of very careful men. The various oxidation products of salvarsan are extremely toxic. In some cases these oxides have evidently been formed before the drug was administered, this being particularly liable to occur when neosalvarsan is used.

In the treatment of chronic forms of syphilitic nephritis much has been learned as to the relative values of the old and the new therapy. Several hundred cases have afforded ample material for the study of every degree of involvement to which the kidneys may be subjected. It is almost a daily happening to have a case of albuminuria clearing up under specific medication. We have found that in every instance the kidneys improve under salvarsan more quickly than with mercury or the arylarsonates such as soamin and sodium cacodylate. At the same time the danger of ptialism, diarrhea and other disagreeable features attending mercurial medication are avoided. In addition to this, there is always the ever-present evidence that with salvarsan we can cure instead of simply treat the patient.

You may ask of what does this evidence consist? The reply is that not only do cures result clinically, but also absolutely as shown by the fact that some of the patients have recontracted syphilis. This alone can be absolute proof that a patient has been cured. You cannot secure an inoculation as long as

the disease is present. Under the old regime of iodides and mercury, every case of reinfection was doubted, but the reports coming from all parts of the world during the last three years are too plain to admit of unbelief.

The following case reports show how quickly results are obtained:

1. Mr. J. R. G., age thirty-two; contracted syphilis eighteen months ago. Secondaries positive in usual time and patient was getting along very well until few weeks past, when he noticed oedema beginning in face, hands and feet, accompanied by evening fever. Examination showed young, well-developed man with generalized subcutaneous oedema, anemia, shortness of breath and anxious expression. Pulse 112 to the minute, and temperature 99.6 F. The urine showed a specific gravity of 1.000, albumin heavy trace and many hyaline and granular casts. Previous medication consisted of mercury in pill form, taken irregularly.

The first treatment consisted of five decigrams of salvarsan intravenously on May 3, 1912, the date of examination. Three days later the urine showed a specific gravity of 1.000, but albumin greatly reduced. Patient was feeling better and there was less oedema. On May 10, or one week after the first treatment, the urine showed specific gravity of 1.008 and no albumin.

A second dose of five decigrams was given two days later with a mild reaction following. Patient continued to improve rapidly and did not stay for further treatment.

Six months later he called to report that his condition had been excellent since leaving us. Urine at this time was entirely negative for albumin and gravity had risen to 1.018. Examination again in March, 1913, showed a continued absence of albuminuria with a specific gravity of 1.024. Patient was still in good condition generally. In the meantime two additional doses of salvarsan had been given to be certain of entire elimination of syphilis.

The second case was that of a salesman (W. O. M.), aged thirty-nine years, who was examined on August 7, 1912, and found to have locomotor ataxia of two years' standing. His urine showed a heavy trace of albumin with hyaline and granular casts and specific gravity of 1.010. Treatment consisted of an initial dose of three decigrams of salvarsan intravenously. During the next week there was a slight increase in albumin content of

the urine. A second dose of four and a half decigrams was given on August 15, or one week later. Following this there was a rapid reduction of albumin, and on August 20, or thirteen days after the first examination, the urine was entirely negative and the specific gravity had risen to 1.024.

In some instances where the patient gives no history of specific infection, very confusing results are obtained when treatment is given as for the ordinary forms of chronic nephritis. In other words, the diagnosis in the absence of history and usual evidences of syphilis may long remain obscure as shown by a case recently reported by Gottfried of Vienna. When in doubt we should try specific treatment in an effort to make a therapeutic diagnosis as is often done in malaria.

The chairman of this section, Dr. J. H. Chesnutt, has recently called our attention to a very obscure case of albuminuria under his care. This patient had been treated for cystitis, enlarged prostate and almost every known cause for inflammation of the genitourinary tract without results. The beginning of specific medication, however, has produced rapid improvement.

During the intravenous administration of over three thousand doses of salvarsan and neosalvarsan we have yet to see the first case of actual damage to the kidneys. We have not been able to confirm Wechsellmann's idea that it is dangerous to give salvarsan while the kidneys are under the influence of mercury. With proper care as to preparation and dosage, the supposed dangers accompanying the use of this drug cease to exist.

DISCUSSION.

Dr. A. U. Williams (Hot Springs)—The report Dr. Purdum makes, of course, is certainly very interesting in the use of salvarsan in these cases. But I think I will take issue with him a little on one point. Numbers of these cases got well before the discovery of salvarsan under the old treatment of potash and mercury and the drinking of Hot Springs waters, and they still get well without salvarsan. I could tell the doctor of dozens of cases that got well without salvarsan that were as bad as any he described and are still living, that were treated ten, fifteen or twenty years ago. I have no criticism to make of the doctor's treatment with salvarsan, but I must object to his criticism of the administration of mercury and potash.

Dr. J. F. Rowland (Hot Springs)—I had occasion last summer, while at Berlin, to visit Wechsellmann's clinic, and in these cases where the urine shows albumin, if it appears in the urine after the first dose, the dose is diminished. Wechsellmann gives only .3 gr. to the dose. He gives salvarsan intravenously, and neosalvarsan subcutaneously. I saw a case at Hot Springs—I don't think that the urine was examined prior to giving .6 gr. salvarsan; and three days

after the administration of that dose the patient developed an acute case of nephritis, and in three or four days thereafter died of an acute attack of nephritis. Whether or not that case developed nephritis before the dose was administered is not known. However, this attack occurred three days afterward. I think in Wechselsmann's clinic they make a custom of examining every patient's urine before giving the salvarsan. They give it often and in small doses, and, if the albumin increases in the urine after the administration of the first dose, the second dose is postponed until this albumin decreases.

Dr. Purdum (Essayist)—I do not wish to leave the impression that cases would not improve with the iodide of mercurry, or even get well, but what I wish to drive home is the fact that a few isolated cases of acute hemorrhagic nephritis would not get well with iodide of mercury; hundreds and thousands might, but these others will die unless given the other drug. As regards the treatment of chronic cases, the only point I wished to make was that the rapidity of action is much greater with salvarsan than with potash and mercury, and I wished to show by the number of doses administered and the results obtained that albumin in the urine was not a contraindication to the giving of the drug. In other words, a patient with chronic nephritis cannot be given the hope of quick benefit without damage to the kidneys in most instances. In the case stated by Dr. Rowland, he told you that a urinalysis was not made before the first dose was given. Therefore, they did not know the extent of the albumin in the urine. It is our custom always to make a urinalysis, and, if it is shown to be in bad condition, of not giving the medicine until it has improved, provided you can produce that improvement. In those acute cases to which I referred, however, you will find that sometimes you cannot get the improvement necessary in your patient or the condition you would like for the salvarsan, and I wish to say that when that seems to be hopeless or does not respond to the iodide of mercury, then you can try the other.

THE TESTS OF RENAL FUNCTION.*

By William H. Deaderick, M. D.,
Hot Springs.

The classifications of kidney lesions is chaotic and their diagnosis and prognosis are lamentably uncertain. It is common knowledge that the physical and chemical properties of the urine are not a true index to the degree of kidney damage or of functional efficiency. Any test, therefore, which will throw light on this field is a valuable acquisition to our knowledge of these lesions, nor our shortcomings here of only recent realization. As long ago as 1857 Todd, and in 1865 Roberts, discussed the delayed elimination of certain drugs, and in 1873 Bouchard experimented with fuchsin for this purpose.

Most of the work done along this line has consisted of experiments with the elimination of various chemical substances.

*Read in the Section on Practice of Medicine of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

It is scarcely within the range of reasonable expectation that any single test for kidney function will entirely supplant clinical observation as a basis for diagnosis and prognosis, but results of these tests must be correlated with clinical findings.

The polyuria test was introduced by Albarán in 1904. Its value consists in demonstrating the reserve force of the kidneys, a diseased kidney not being proportionately able to respond to the increased stimulus, and for comparative tests of each kidney of an individual. After giving the patient half a litre of water the urine is collected during half hourly intervals for three hours. During the second half hour the urine is normally increased, attains the maximum during the third half hour, then decreases rapidly.

The objections to the test are the long time required, the fact that it is not always possible to produce a polyuria even in a healthy kidney, and that a polyuria may have pre-existed from a diseased kidney.

The determination of the total solids excreted by the kidneys is readily determined and with sufficient accuracy for practical purposes, according to the method of Haeser and Haines, if the amount of urine in twenty-four hours and the specific gravity are known. The number of ounces is multiplied by the last two figures of the specific gravity and ten per cent of the product added, the result being the number of grains excreted in twenty-four hours.

The amount of solids excreted is not a very accurate index to renal efficiency, notwithstanding urea is the solid which most influences the specific gravity.

Methylene blue was first used to test the kidney permeability in 1897. It is not supposed to indicate the degree of secretory activity. Fifteen minims of a five per cent solution are injected hypodermically. The normal time of appearance in the urine is from fifteen to thirty minutes, the maximum excretion is during the third or fourth hour, and elimination is completed in from thirty-six to forty-eight hours. The test is not accurate and has not been generally adopted.

Phloridzin was introduced for this purpose by Klemper in 1896. One cubic centimeter of a 1 to 200 solution is injected hypodermically. Glycosuria appears in half an hour and disappears in three or four hours. A wide variation of results has thrown this test into discredit.

Indigo-carmin, first used by Voelcker and Joseph, has not received favor, as only 25

per cent is excreted by the kidneys. It is supposed to be excreted by the cells of the convoluted tubules. From five to ten c.c. of a 0.3 per cent solution are injected intravenously. The beginning of elimination is noted in from two to six minutes, and after fifteen or twenty minutes the color of the drug has almost disappeared.

Rosaniline was first used by Lepine in 1898. Between 60 and 95 per cent is excreted by the kidneys. After hypodermic injections it first appears in the urine within thirty minutes; elimination is at the maximum during the third and fourth hours and is completed in about twenty-four hours. Owing to the greater amount of this substance excreted in the urine, it is more reliable as a test than indigo-carmin, but cannot be regarded as having great diagnostic value.

The determination of the non-proteid nitrogen of the blood as a test of kidney function was recognized by Bright in 1836. The difficulty of the technic and the inconstancy of the results preclude the general practicability of the method.

The electrical conductivity of the urine was introduced by Turner. The method is complicated, the apparatus expensive and the results inaccurate.

In 1897 Koryani averred the value of cryoscopy, the determination of the freezing point of the urine, as an index to renal sufficiency. The freezing point of the urine varies within wide physiologic limits, deficiencies in certain solids may compensate for large increase in others, and it is largely influenced by diet and water; so this test is not of great value to the general practitioner.

Potassium iodide was one of the first substances used to test renal efficiency, having been introduced by Duckworth in 1867. Following the teachings of Schlayer, it is used to determine tubular functional capacity. Fifteen-tenths of a gram of potassium iodide is given by the mouth and the urine is tested every two hours by Sandow's method. Excretion should be completed in from thirty to forty-eight hours, and if prolonged beyond sixty hours, tubular disease of the kidneys is supposed to exist. This test has recently been proven unreliable.

The excretion of sodium chloride in the urine has been studied particularly by Schlayer as a test for tubular efficiency. After the estimation of total chlorides has been made in a patient on an ordinary diet, five grams of sodium chloride are given by mouth.

Within twelve hours the amount excreted should equal that administered, otherwise there is delay. The salt test is not thoroughly satisfactory.

The lactose test advocated by Schlayer as an index to the vascular function of the kidneys consists of the intravenous injection of a solution of twenty grams of lactose in twenty c.c. of distilled water pasteurized at 75 to 80 degrees for four hours on each of three successive days. All of this should be excreted in four or five hours. This test is sensitive and is useful for diagnosis, and but for the time required for the preparation of the solution, would probably be of broader clinical use.

Phenolsulphonephthalein was first described by Remsen in 1884 and was introduced as a functional test by Rowntree and Geraghty in 1910. It is a bright red crystalline powder, somewhat soluble in water, more so in alcohol, but insoluble in ether. It is non-toxic and non-irritating, is excreted with rapidity and exclusively by the kidneys. Its color renders it peculiarly fit for colorimetric estimation. It appears in the urine in one hour when given by the mouth, in ten minutes or less when given hypodermically or intramuscularly, and in three to five minutes after intravenous administration. Geraghty believes that it is excreted by the renal tubules alone, the glomeruli being little, if at all, concerned. It is capable of demonstrating the reserve force of the kidneys.

The preparation best suited for general use is a solution each cubic centimeter of which contains six milligrams of the drug. The best colorimeter is Rowntree and Geraghty's modification of the Autenrieth-Konigsberger instrument. Twenty to thirty minutes before injecting the solution the patient is given 200 to 400 c.c. of water to insure diuresis. This, however, is not essential, as the output of the drug is not influenced by the amount of urine. After the bladder has been completely emptied spontaneously or by aid of a catheter, exactly one c.c. of the standard solution is injected into the muscles of the lumbar region. It seems important to select this location since intra-gluteal injections have given subnormal readings. To ascertain the time of the appearance of the drug, the urine is allowed to drain through a catheter into a test tube containing a few drops of a five per cent solution of sodium hydroxide and the time of the appearance of the first faint pinkish tinge is noted. The urine is collected at

the end of one hour after injection, and at the end of two hours, care being taken that the bladder is completely emptied. To ascertain the amount of the drug eliminated, the urine of each period is placed in a litre graduate, ten c.c. of a five per cent solution of sodium hydroxide added, and then diluted with distilled water to one litre. A small portion of this diluted urine is placed in the rectangular cup and the wedge-shaped cell is manipulated by means of the screw until the two sides of the color field are identical in intensity. The percentage is then read from the indicator on the instrument.

The drug should first appear in the urine from five to ten minutes after injection; from 40 to 60 per cent should be excreted in the first hour, and from 60 to 85 per cent in two hours. The influence of diuretics on the output of phenolsulphonephthalein has been studied by Rowntree and Geraghty, who found that those diuretics which are known to exert some stimulating influence on the activity of the secreting cells of the kidney, namely, caffeine, urea, dextrose, phloridzin and calomel, slightly increase the output, while those acting by changes in osmotic tension or blood pressure, as sodium chloride, potassium nitrate and digitalis, apparently have little or no effect on its excretion.

The conditions in which this test is of value in determining renal efficiency are especially acute nephritis, chronic parenchymatous and chronic interstitial nephritis, uremia, cardiac disease and cardio-renal disease. It gives valuable data in surgical conditions of the kidney also. In renal calculus, renal tuberculosis, renal tumors and hypertrophied prostate causing obstruction there is both delayed and diminished excretion. Further experience will doubtless broaden its field of usefulness to the surgeon. Uremia has been predicted before the appearance of suspicious symptoms.

Like all other clinical tests, this one is not absolutely infallible. Rowntree and Geraghty found five mild cases of chronic parenchymatous nephritis of short duration in which the phenolsulphonephthalein elimination was normal. Foster also reports three such cases, and Pepper and Austin, Cabot, Keyes and others have noted shortcomings. Practically all clinicians, however, who have had much experience with the test are loud in their praise of its reliability, and it may be con-

servatively regarded as the most efficient of all functional tests hitherto devised.

CONCLUSIONS.

1. The P. S. T. test is simpler than other functional tests. It is no more complicated than an ordinary urinalysis, and requires but a short time for its application. The drug is non-irritating and non-toxic.

2. The total amount of work of both kidneys is accurately shown by delay and diminution of excretion.

3. The relative efficiency of each kidney is determined by analysis of the segregated urines.

4. The test is of great importance in cardio-renal disease by indicating the organ mostly at fault.

5. Valuable prognostic data may be gathered by the application of this test.

6. Absolute reliance should not be placed upon any functional renal test, but the results should be correlated with clinical findings.

DIET AND TOXIC DRUGS.

After referring to their former paper showing that a diet of fats increases the susceptibility of the liver to a necrosis induced by chloroform, E. L. Opie and L. P. Alford, St. Louis (*Journal A. M. A.*, July 11, 1914), give the results of their experiments on the influence of diet on the toxicity of phosphorus to the liver and that of potassium chromate in uranium nitrate to the kidneys, and sum up their conclusions from their experiments as follows: "The toxicity of phosphorous, which causes fatty degeneration of the liver, is greater in animals which have received a diet of meat than in those which have received diets consisting in large part of carbohydrates or of fat. Animals on a diet rich in carbohydrates are much less susceptible to nephritis produced by potassium chromate and uranium nitrate than animals on a diet consisting of meat or fat. A diet of meat increases the toxicity of potassium chromate, which produces necrosis of the convoluted tubules of the kidney. A diet consisting of fat increases the toxicity of uranium nitrate, which produces nephritis by altering especially the loops of Henle."

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Editorials.

OUR NEW PRESIDENT.

The election of St. Cloud Cooper, M. D., F. A. C. S., is one more honor worthily bestowed on one of the real workers in and for the profession. Being in his fifty-third year, he is still a young man, as years are counted when balanced by achievements; but men twenty years his senior might be proud of his record.

Dr. Cooper was born in Jefferson, Tex., in 1861, the scion of sturdy old English stock still flourishing in the mother country. His American ancestors fought with Washington for American freedom. They fought in the early Indian wars and were pioneers in developing this country. He was partly educated in the public schools of Carrollton, Mo., then entered the Washington University, Medical Department, St. Louis, receiving his degree of M. D. in 1882.

The following year he began the practice of his profession in Tilden, Tex., remaining there until January, 1886, when he went to New York for six months of post-graduate work at Long Island College Hospital and New York Post-Graduate School. He then returned to the place of his birth, Jefferson,

Tex., where he continued in practice until the fall of 1895, when he moved to Fort Smith, where he has since resided. He has not only built up a large practice, but has done splendid work for his adopted state and city in service on health boards, State Board of Nurse Examiners, and in hospital work as lecturer.

Dr. Cooper, like all other scientific physicians, well knows that there is always something new to learn, and in the pursuit of further knowledge, in addition to the courses mentioned, he has taken other post-graduate work in New York, Boston, Chicago, Montreal and St. Mary's Hospital clinics at various times.

On the same theory of learning by interchange of experience and opinions, he is a firm believer in medical societies and is a member of his own County (Sebastian) Medical Society, the Arkansas Medical Society, the American Medical Association, Medical Association of the Southwest, Southern Medical Association, Tri-State Medical Society, and the Tenth Councilor District Medical Society.

That his attainments have been recognized and that he is always ready to lend them for the advancement of the profession and the good of humanity, are facts in evidence by the service he has rendered on the Fort Smith Board of Health, of which he has been a member fifteen years; as a member of the staff of Sparks Memorial Hospital for seventeen years; as lecturer on surgical nursing in the same hospital, and as member of the Board of Nurse Examiners for Arkansas.

Last year he was given the degree of F. A. C. S. at the first convocation of the American College of Surgeons, held in Chicago.

When the meeting at El Dorado elected such a worker and a man of notable achievements as president of the Arkansas Medical Society, it did honor to the society as well as to its new executive head.

THE NEW COUNTY SECRETARIES' ASSOCIATION.

In the possibilities of usefulness in building up the Arkansas Medical Society, possibly the one best thing accomplished at the May meeting at El Dorado was the organization of the County Secretaries' Association as an auxiliary body to the State Society. As The Journal has so frequently pointed out, a good secretary is the very life and inspiration of the County Medical Society. He is what the fuel is to the engine boiler—no

fuel, no steam. It is safe to say that success or failure depends on the qualifications and energy of the secretary. Hence, the absolute necessity of electing secretaries for their qualifications rather than merely to confer an honor on some influential or faithful hard-working member. This now becomes of even greater importance than ever, because as only secretaries (together with the officers of the State Society as ex-officio members) are eligible for membership in the County Secretaries' Association, that organization will itself fail of its purpose unless made up of the best material the different counties afford.

One of the objects of prime importance is the working out of plans for better scientific programs for the county meetings, and next in importance is increasing the membership of the county societies until every reputable physician will realize that he cannot afford to stay out of it. We say the programs are first in importance and membership increase second, because the one is contingent on the other. A secretary with the persuasive tongue of a book agent, a good fellow, a mixer, might canvass his county and get every physician not already a member to join. But unless they heard something worth while, the first meeting they would attend would likely be the last. On the other hand, let a county society acquire a reputation for having first-class, attractive programs, and physicians will come knocking for admission. Merely to get new members is a very simple achievement compared to holding them.

A famous evangelist holds a revival, and under the spell of his zeal, earnestness and eloquence, hundreds are moved to join the church. A church may import such an evangelist at frequent intervals and at the end of a decade the church roll may contain a greatly swelled list of names, but with no increase in average attendance. The reason is clear. The evangelist gets them, but the local minister, lacking his eloquence and zeal, cannot hold them. That is the situation exactly with the county medical society. Its scientific programs must be such as will attract and hold its old and new members alike. Without that it cannot hope to accomplish anything.

With attractive scientific programs calculated to teach the members something we would not have reports of meetings at which the most important discussions concern agreements as to minimum fees, after the manner of a labor union agreeing on a minimum wage

scale, or of mooted laws to give a physician a chattel mortgage to protect his fee.

The securing of such programs must devolve on the secretary, hence he must not only be a booster for the society, but he must be well qualified in his profession. It is not enough to vaguely ask a member to contribute a paper. The secretary must be abreast of the times and of conditions in his county. Suppose in any given county there is an undue prevalence of some disease. It would be the right thing to select the physician best qualified to prepare a paper directed to ascertaining what local conditions exist favorable to that disease, what measures should be instituted to prevent its spread—matters of live interest to the whole community.

That is merely a suggestion as to programs, but there is work along other lines. An important thing is to send reports of all meetings to *The Journal*. In this generation publicity is the best asset any organization can have.

If the individual secretaries will do their part there will be a handsome increase in the membership of county societies throughout the state, and, in turn, this means a full representation at the next and each succeeding annual meeting of the Arkansas Medical Society. The secretary of every county society should be a member of the County Secretaries' Association. If not a charter member, send your name to the secretary, Dr. Thomas Douglass, Ozark, Ark. Do it now and the result of concerted action will be in evidence at our next annual meeting and, sooner, in the increased attendance and interest in the county society meetings.

THE ATLANTIC CITY SESSION OF THE A. M. A.

The American Medical Association held its sixty-fifth annual session at Atlantic City, June 22-26, 1914.

Arkansas physicians in attendance were: W. V. Laws, J. T. Jelks, Hot Springs; E. L. Watson, Newport; J. C. Wallis, Arkadelphia; H. D. Wood, Fayetteville; C. F. Perkins, Springdale; Morgan Smith and William Bathurst, Little Rock.

Dr. John A. Witherspoon opened the general session and delivered his retiring address, after which Dr. Victor C. Vaughan presided over the remainder of the session.

In the president's annual address Dr. Vaughan took up the subject of medicine to

civilization. "In ancient times," he said, "civilization arose, grew for a few centuries and then declined. In all instances it was local. Relatively small bodies of men occupying salubrious regions developed the elements of science and for a few centuries flourished. They overcame their less fortunate neighbors; with conquest came infection and national decay."

He reviewed the histories of Egyptians, the Greek and the Roman civilization, all of which succumbed to malaria and pestilence introduced by captives. The plagues of the middle ages which kept Europe thinly populated for centuries were also reviewed. The claim that infectious diseases have benefited the race by destruction of the unfit is shown to be unfounded in fact. Dr. Vaughan has combated it from his own experience in the Spanish War and he brought forward many proofs from ancient and modern history to support his views. A study of epidemics shows that in the presence of wide-spread contagion, mankind tends to revert to barbarism. Disease breeds immorality, ignorance and strife, and Vaughan held that it was not extravagant to prophesy that with ten centuries of freedom from disease, inherited or acquired, the world would be regenerated and the superman be born.

"We need not turn to history for examples of the degenerating effects of disease," he said. "We see it today in the physical inferiority, intellectual weakness and moral irresponsibility of those people who are still under the shadow of malaria and kindred ailments. We have not yet got out of the shadows of the dark ages. Medicine consists in the application of scientific discovery to the prevention and cure of disease. Everything else is sham and fraud. The civilization of which we boast is still only partial, though science dominates the world more now than ever. No nation where conditions exist as they do at present can be given a clean bill of health, and there is much yet to be done before we approach this mark. All intelligent people must co-operate in hygienic measures. To permit disease or to transmit disease to offspring is unpardonable, and to infect another one with disease is immoral."

Dr. Vaughan pointed out the ways in which medicine was a public service, though its work is done at a sacrifice by those who render the service. He noticed the laws that were being enacted and that are proposed for the advancement of public health and the

benefit of the race, and gave his own ideas as embodied in the Michigan legislation. If preventive medicine is to do its best service, the time must come when every citizen will submit to a thorough medical examination once a year or oftener.

"The public health service is doing good work," he said, "but in each state there should be a hygienic laboratory and a board to use it for the study of sanitary conditions and the prosecution of scientific research."

He closed with an appeal to the younger members of the profession who have the work before them and on whom the future of the race depends.

Secretary Craig reported that on May 1, 1914, the Fellowship of the American Medical Association was 41,029, a net increase for the year of 3,116.

Treasurer Pusey's report showed a balance on hand of \$140,523.72 in bonds, certificates of deposit and checking account.

The Judicial Council called the attention of the House of Delegates to the subject of advertising in the public press by physicians. The Judicial Council finds that the profession is restive under the flagrant misuse of the public press by certain members of the profession and certain prominent non-prominent Fellows of the American Medical Association itself.

The Judicial Council recommended the following resolution:

Resolved, That it is the sense of the House of Delegates of the American Medical Association that each county society should constitute a publicity committee, whose duties shall be to give to the daily press accurate information on all medical matters of interest to the public, that this shall be freely given without the mentioning of names or from whence the information comes, and that this committee shall further act in an advisory capacity to all physicians of its society in questions relating to publications other than in the medical press. Be it further

Resolved, That the secretary of the American Medical Association be instructed to forward this resolution, with the reasons calling it forth, to the secretary of each constituent state association, with the request that it be transmitted to each component society of that constituent association.

Dr. Wm. A. Pusey of Chicago submitted the following resolution, which had been unanimously adopted by the Section on Dermatology:

Whereas, Leprosy exists in many foci in this country and has been statistically shown to be on the increase; and,

Whereas, Those afflicted with leprosy are being subjected to most inhuman treatment; and,

Whereas, Many lepers are traveling in many states because of this inhuman treatment to which they are subjected, thereby constantly exposing the general public to the contagion; and,

Whereas, It is the duty of the federal government to control traffic between states; and,

Whereas, At the present time the care of lepers in the United States is a great economic burden upon the individual states, and is moreover of necessity inadequate from a medical and sanitary standpoint; therefore, be it

Resolved, That the association recommends the passage by Congress of a law providing for the comprehensive care and control of leprosy by the federal government.

Dr. Morgan Smith of Little Rock presented the following resolutions from the Section on Preventive Medicine and Public Health:

Whereas, The improvement and control of the milk supply of the country is one of the most important measures for the protection of the public health, and in order that this importance may be properly directed and the control intelligently exercised, it is necessary that milk standards be established and classes of milk defined; therefore, be it

Resolved: 1. That the Section in Preventive Medicine and Hygiene of the American Medical Association urges the House of Delegates to approve of the establishment of uniform milk standards and the classification of milk, such as are embodied in the report of the Commission on Milk Standards appointed by the New York Milk Committee and published in the public health reports, August 22, 1913; and

2. That the Section on Preventive Medicine and Hygiene of the American Medical Association recommends that the House of Delegates urge the adoption of these standards and classifications by municipalities, so far as local conditions make that possible. Referred.

Resolved, That the Council on Medical Education be requested to investigate the courses of instruction now leading to the degree of Doctor of Public Health and similar degrees, and to outline minimum requirements for such courses. Referred.

Resolved, That a committee be appointed to represent the American Medical Association in any conference that may be held or any action that may be taken looking toward the formulation and enactment of laws and regulations providing for the reporting of cases of disease and disability.

The new officers are: President-elect, Dr. William L. Rodman of Philadelphia; first vice president, Dr. D. S. Fairchild of Iowa; second vice president, Dr. Wisner R. Townsend of New York; third vice president, Dr. Alice Hamilton of Chicago; fourth vice president, Dr. William Edgar Darnall of Atlantic City; secretary, Dr. Alexander R. Craig of Chicago, re-elected; treasurer, Dr. William Allen Pusey of Chicago.

Nearly five thousand members registered at this meeting.

San Francisco was chosen for the next annual convention.

Personals and News Items.

Dr. B. F. George has moved from Parkdale to Hamburg.

Dr. W. C. Brown of Monticello visited in Little Rock last month.

Dr. A. R. Stover of Little Rock is taking a post-graduate course in Chicago.

Dr. Rosa B. Rowland of Hot Springs visited in Little Rock last month.

Dr. R. M. Eubanks of Little Rock is taking a post-graduate course in Chicago.

Dr. E. T. Bramlitt and family of Malvern have gone to Mt. Magazine for the summer.

Dr. J. H. Weaver of Hope and Dr. S. J. Weaver of Fulton recently spent a day in Little Rock.

Dr. Loyd Thompson of Little Rock will spend the summer in the office of Dr. Bransford Lewis, in St. Louis.

Dr. E. M. Pemberton and Dr. Charles E. Oates of Little Rock are taking a post-graduate course in Chicago.

Dr. and Mrs. Frank B. Young have moved from Springdale to Little Rock, where Dr. Young's new duties as state health officer require him to be located.

Dr. A. Bishop and C. A. Bishop have submitted plans to an architect for specifications

on a two-story fire-proof building at Ash-down.

Advertisers appreciate the statement, "I saw your ad in The Journal of the Arkansas Medical Society." Be sure you say this when you write for information or place an order.

Physicians visiting in Little Rock during the past month were: E. F. Brewer, Augusta; R. T. Gebhart, Cotton Plant; E. P. McGehee, Lake Village; T. E. Rhine, Thornton; J. S. Rushing, Chidester; L. L. Purifoy, El Dorado; J. F. Hays, Russellville; R. A. Jungkind and W. H. Abington, Beebe.

Dr. Morgan Smith, dean of the Medical Department of the University of Arkansas, has returned from the East. After attending the meeting of the American Medical Association at Atlantic City, Dr. Smith visited the hospitals in Philadelphia, New York, Boston, Cincinnati and Indianapolis. The information gained will be laid before a committee of physicians appointed some time ago to devise ways and means and study plans for a State Charity Hospital.

HOOKWORM COMMISSION IN ARKANSAS.

Dr. T. M. Fly's report last month of the survey of Arkansas County shows that 1,289 microscopical examinations were made for intestinal parasites, with result as shown:

Total number infected with hookworm, 22; total number infected with round worms, 14; total number infected with dwarf tapeworms, 28; total number infected with whipworms, 11; total number infected with oxyuris, 2; total number infected with strongyloides intestinalis, 2.

Dr. E. O. Campbell recently visited Foreman, and out of 310 examined, 53 were found to be infected with hookworm.

THE NEW DRESS OF THE ANNALS OF SURGERY.

Owing to the continually increasing amount of material of value, offering for publication in The Annals of Surgery, the publishers have found it necessary, beginning with the July (1914) issue, to enlarge the size of the page and also to somewhat reduce the size of type in which the original contributions have heretofore been printed.

Thirty years ago, when the first number of The Annals of Surgery appeared, the size and style then showed suited admirably. At that time a single number contained only 96 pages. They have continued to increase each year until now the average number of pages to an issue is 164. Special issues have been published in which the number has been increased to over 300 pages, with the result that the manufacturing of the journal in the former style is not only extremely difficult, but the finished product is unwieldy and cannot be read with the ease and comfort which is due a subscriber.

The July issue has a choice collection of important articles of exceptional value to the general practitioner as well as the surgeon. It is a splendid example of the way this publication continues to set the pace in surgery.

Abstracts.

SOME UNHEALTHY TENDENCIES IN THERAPEUTICS.

In the chairman's address before the Section of Pharmacology and Therapeutics at the recent meeting of the American Medical Association, Dr. John F. Anderson, director of the Hygienic Laboratory, Washington, D. C. (Journal A. M. A., July 4, 1914), calls attention to some unhealthy tendencies in therapeutics at the present time. These, he says, have been particularly in evidence as regards the use of certain biologic products. While we formerly used to teach that drugs given by the mouth would relieve or cure, it now seems to be the fashion to teach, that in order to secure a surer and more lasting effect we must introduce the drugs into the body parenterally, and some physicians seem to ascribe virtue to almost any preparation. Some agents that have been put forward with extravagant claims are clearly fakes, but others are of little more value, such as the Friedmann's vaccine, the Duket treatment, snake poison for epilepsy and other conditions, the use of bacterial products for rheumatism, etc., vaccines for non-bacterial diseases and mixed vaccines for the treatment of almost any ill; mineral oil for almost every form of constipation and various remedies for pellagra—all these are among the things enumerated. Bacterial therapy is undoubtedly of value in some cases, but it is being driven now far beyond its proper limitations and some of the

widely exploited preparations have been proven clearly harmful and have even caused death. Advances are necessary and clinical trials must be made, but only with adequate controls of untreated cases and the closest watching of every stage for the taking of an unbiased record. It is difficult to secure these things outside of a well-equipped hospital, but until a new treatment has received abundant confirmation of this sort it is unjust, to use no stronger word, to apply it promiscuously to patients not under constant observation and not amenable to instant emergency relief. Not only sales, but attempts to ship dangerous biologic products in interstate traffic, should be prohibited, and not only that, but excluding them and their advertising from the mails. After all, he says, it devolves on the medical profession to use wide discretion in their endorsement of preparations and it should appreciate its responsibility.

RESEARCH IN OPHTHALMOLOGY AND THE TRAINING OF OPHTHALMOLOGISTS.

In the chairman's address before the Section on Ophthalmology at the recent meeting of the American Medical Association, Dr. Frank C. Todd (Journal A. M. A., July 4, 1914), in speaking of the lack of productive research workers in America, attributes it to the absence of means and opportunity rather than lack of men fitted to do the work. He recommends the creation of a certain number of scholarships in high-grade medical schools where suitable material for clinical experience in ophthalmologic work is at hand. Such students could be employed as assistants or teaching fellows with a small salary which would meet all their necessary expenses and enable the student to give all his time to the work. In this way the opportunity for research work would be provided. He also recommends a definite curriculum for the study of the related branches of medicine, in order to avoid the extreme specialization which creates narrowness, and to provide a systematic scheme of study. Students showing an aptness for research work should be encouraged to take up further studies in this direction.

STUDIES IN PROSTATIC OBSTRUCTION AND VESICAL ATONY.

In a paper by Dr. Bransford Lewis of St. Louis, with the above title, read before the American Urological Association, June 18,

1914, at Philadelphia, the following were the conclusions:

1. The exact causation of urinary retention should be sought for in all cases before adopting a plan for treatment.

2. It should always be found in one of two factors, namely: (a) physical obstruction of some kind, or (b) disturbance of the nervous mechanism controlling urination.

3. There is no such thing as "unaccountable" atony or urinary retention; such a term represents an incomplete diagnosis.

4. There is no such thing as "incurable atony," except when it is caused by some nerve-degenerative process (tabes, etc.) that precludes restoration of the expulsive power; and it is unjustifiable in the most of these cases.

5. Even when the retention and atony are caused by nerve degeneration much can be done in the way of treatment, both locally and internally, to facilitate urination and improve the conditions prevailing.

6. Where the cause is a physical obstruction, its complete removal paves the way to restoration of the expulsive power.

7. The most frequent and important of the obscure, unrecognized causes of obstruction are: (a) ill-defined contracture at the vesical neck (demonstrable sometimes only by palpation through the opened bladder or urethra); (b) unrecognized syphilis, acquired or hereditary, affecting the spinal centers.

8. Such conditions are by no means confined to adult life, and should be looked for and recognized at any age, from infancy up; diagnosed and treated in accordance with the refined diagnosis always demanded by cases of urinary obstruction.

9. Syphilis is a surprisingly frequent cause of such conditions. Lack of syphilitic history or general nerve symptoms, in obscure cases, should not preclude investigation by means of a Wassermann blood test; and if this proves doubtful, a Wassermann test of the spinal fluid should be made as well.

10. The supreme value of early recognition and differentiation of such cases appears in the opportunity it offers of affording appropriate treatment before the case has assumed the hopeless phases that preclude reclamation or benefit.

A final but too late recognition is but poor solace for a lifetime of suffering due to delinquencies in diagnosis.

DERMATOLOGY IN AMERICA.

In his chairman's address on the future of dermatology in America before the Section on Dermatology of the American Medical Association at its recent session, Dr. R. L. Sutton, Kansas City, Mo. (*Journal A. M. A.*, July 11, 1914), says that in this particular field the crying need at present is an asylum for lepers. As C. J. White has pointed out, the establishment of state institutions for these unfortunates is seldom practicable. Not distantly related to the question of leprosy is that of syphilis, especially as regards its treatment, and he thinks too much cannot be done to bring the profession to a realization of its responsibility in this matter. It is absolutely necessary, Sutton says, that this affection receive more attention in our medical schools. While discussing scholastic needs, he thinks that what we most need here in America is hospitals and wards where young men can work and gain a practical working knowledge of dermatology as well as other subjects—wards with laboratories of their own attached, with a sufficient number of interns to attend to the routine duties and relieve the instructors of a few of the numerous duties that are inseparably connected with research work. The forms that are being undertaken with regard to proprietary medicines and medical advertising are also noticed. Dermatologists can aid in the good work by refusing to prescribe advertised remedies of unknown composition and by patronizing and contributing only to the representatives of clean medical journalism. Sutton also mentions the waste of good clinical material in our large cities. In conclusion, he suggests one or two subjects in dermatology that would be profitable subjects for research, such as verruca vulgaris and lichen planus and the purpura group of the borderline maladies.

NEOSALVARSAN.

Referring to his preliminary report in *The Journal*, U. J. Wile, Ann Arbor, Mich. (*The Journal A. M. A.*, July 11, 1914), redescribes the method of treatment of syphilis of the nervous system advocated by Ravaut, and gives his recent experience in its use. In all, twenty-five intradural injections have been

given in fifteen different patients—seven with tabes, three with paresis, three with cerebral spinal syphilis and one with taboparesis. The case histories are given. Two of the patients are dead, seven are markedly improved both subjectively and in the objective findings in the cerebro-spinal fluid; the paretics received only a single injection and were unaffected. One patient showed an improvement after a single injection, but relapsed, and one patient was improved as regards the oculomotor palsy, but the paraplegia progressed. In Wile's opinion the cases with cerebro-spinal syphilis other than tabes or paresis had done the best and those with tabes without rectal or bladder symptoms better than those in which these symptoms were present. The marked improvement in the objective findings in the spinal fluid following the treatment leads one, he says, to hope that it is a move in the right direction in cases with central nervous involvement. The patients on whom it is used should be carefully selected, and, for the present, at least, this method should be restricted to cases where other treatments have failed. In all cases its dangers should be fully explained to the patient and his friends and they should share the responsibility for its administration.

HOOKWORM AND EYE DISEASE.

J. W. Jervey, Greenville, S. C. (*The Journal A. M. A.*, July 11, 1914), takes up the subject of hookworm in its relation to disease of the eye, reviews the literature of this disease, and comes to the conclusion that it is a cause of eye trouble only through the general systemic condition and the anemia which it produces. None of the eye symptoms that occur in the disease are in any sense sufficiently distinctive or characteristic to be of diagnostic value. In other words, the association of eye symptoms and uncinariasis must be regarded as purely incidental and the eye symptoms occur only as sequelae of the recognized pathologic conditions. When we see the signs of anemia in the eye grounds or in the face, for that matter, we may perhaps suspect the hookworm as being a possible cause, but need go no further. A tabulated statement of the eye symptoms in fifty-three hookworm patients observed by him accompanies the paper.

New and Non-Official Remedies.

Since publication of New and Nonofficial Remedies, 1914, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Non-official Remedies:"

ELECTRARGOL.—Electrargol is a colloidal solution of silver, containing silver equivalent to 0.25 per cent metallic silver. It is said to be useful in febrile diseases, even in those which are not of a septic character. It is also used externally in inflammatory conditions. For subcutaneous, intramuscular or intravenous injections, electrargol is supplied as Electrargol for Injection in ampoules containing five c.c. For external use electrargol is supplied as Electrargol for Surgical Use in bottles containing fifty c.c. (Journal A. M. A., June 6, 1914, p. 1808.)

REFINED AND CONCENTRATED TETANUS ANTITOXIN.—Marketed in packages containing 5,000 units (curative dose), put up in syringe containers. E. R. Squibbs & Sons, New York. (Journal A. M. A., June 13, 1914, p. 1890.)

CULTURE OF BULGARIAN BACILLUS, Mulford.—A pure culture in tubes of the *bacillus bulgaricus*. It is designed for internal administration for the purpose of establishing lactic-acid-producing bacilli in the intestines and for external use. H. K. Mulford Co., Philadelphia, Pa. (Journal A. M. A., June 13, 1914, p. 1890.)

LACTOBACILLINE TABLETS.—A pure culture of the *bacillus bulgaricus*. These tablets give rise to the production of considerable quantities of lactic acid, which tends to restrain the growth of putrefactive organisms in the intestines. Franco-American Ferment Co., New York. (Journal A. M. A., June 13, 1914, p. 1890.)

LACTOBACILLINE LIQUIDE, CULTURE A.—A pure culture in tubes of the *bacillus bulgaricus* grown in a neutralized sugar bouillon, each tube containing from five to six c.c. Its actions and uses are the same as those of lactobacilline tablets. Franco-American Ferment Co., New York. (Journal A. M. A., June 13, 1914, p. 1891.)

LACTOBACILLINE LIQUIDE, CULTURE D.—A pure culture in tubes of the *bacillus bulgaricus* grown in a neutralized bouillon. Its action and uses are the same as those of lacto-

bacilline tablets. Marketed as Lactobacilline Liquide, Culture D, small, containing five c.c., and Lactobacilline Liquide, Culture D, large, containing sixteen c.c. in each tube. Franco-American Ferment Co., New York. (Journal A. M. A., June 13, 1914, p. 1891.)

LACTOBACILLINE LIQUIDE, INFANT'S CULTURE.—A pure culture in tubes of the *bacillus bulgaricus* in a whey medium. It is employed in the treatment of diarrhea or dysentery in nursing infants or young children. Franco-American Ferment Co., New York. (Journal A. M. A., June 13, 1914, p. 1891.)

LACTOBACILLINE GLYCOGENE TABLETS.—Tablets containing pure cultures of the *bacillus bulgaricus* and the *glycobacter peptolyticus*. The *glycobacter peptolyticus* transforms into sugar the amylaceous substances in the diet, thereby furnishing a pabulum for the *bacillus bulgaricus*, which in turn transforms the sugar into lactic acid. These tablets are designed for the prevention and treatment of intestinal diseases. Franco-American Ferment Co., New York. (Journal A. M. A., June 13, 1914, p. 1891.)

LACTOBACILLINE GLYCOGENE LIQUIDE.—A culture in tubes of the *bacillus bulgaricus* and the *glycobacter peptolyticus*. Its action and uses are the same as those for lactobacilline glycogene tablets. Marketed as Lactobacilline Glycogene Liquide, small, containing five c.c., and Lactobacilline Glycogene Liquide, large, containing twelve c.c. in each tube. Franco-American Ferment Co., New York. (Journal A. M. A., June 13, 1914, p. 1891.)

LACTOBACILLINE MILK TABLETS.—Tablets containing pure cultures of the *bacillus bulgaricus* and *bacillus paralacticus*. These tablets are used in the preparation of scientifically soured milk. Franco-American Ferment Co., New York. (Journal A. M. A., June 13, 1914, p. 1891.)

LACTOBACILLINE SUSPENSION.—A pure culture in tubes of the *bacillus bulgaricus* grown in a neutralized bouillon medium. This culture tends to inhibit the growth of deodorant, putrefactive and pathogenic organisms and is used externally in various suppurative conditions. Marketed as Lactobacilline Suspension, containing five c.c., and Lactobacilline Suspension, Surgical, containing twenty c.c. in each tube. Franco-American Ferment Co., New York. (Journal A. M. A., June 13, 1914, p. 1891.)

Married.

BUCHANAN-WARRICK. — In Prescott, on Thursday, July 2, Dr. Gilbert A. Buchanan and Miss Florence Warrick.

County Societies.

FRANKLIN COUNTY.

(Reported by Thos. Douglass, Sec'y.)

The Franklin County Medical Society held its regular meeting June 2 with T. B. Blakely presiding and nine other members present.

Dr. Rambo reported an interesting case of imperforate anus in an infant operated on by Dr. Cooper at Fort Smith with good results.

Dr. T. B. Blakely reported some cases of poisoning from eating wild parsnips. The patients had several convulsions, but all recovered.

Dr. Porter read an interesting paper on obstetrics, and Dr. Williams one on smallpox, which brought out quite a discussion of vaccination.

A general discussion of the health law revealed some surprising opposition to it.

We have had a good meeting every month this year.

PULASKI COUNTY.

(Reported by W. T. McCurry, Sec'y.)

Pulaski County Medical Society met on June 29 in regular session with a good attendance.

We have a hundred members in good standing, and up to the present time we have had good attendance.

After all bills are paid we have \$113.49 in the treasury.

Dr. Ogden's motion to subscribe for certain medical journals of which he had a list was carried. The old committee was reappointed by the chair, which was Drs. Ogden, Snodgrass and Caldwell. They were limited to \$50.00 for this purpose.

Dr. L. P. Gibson introduced the following resolution:

Whereas, The Little Rock Board of Trade and the Little Rock Chamber of Commerce, without consultation with the Pulaski County Medical Society, invited the Arkansas Medical Society to hold its next annual session (1915) in this city; and,

Whereas, The commercial bodies named above have heretofore invited the State Society to meet in Little Rock, and the Pulaski County Medical Society has had to bear the burden of the expense; and,

Whereas, The Pulaski County Medical Society, however willing, is financially unable to bear any of the expense of entertaining the State Society next year; therefore, be it

Resolved, That the secretary is hereby instructed to notify the Little Rock Board of Trade and the Little Rock Chamber of Commerce that this society will be unable to contribute financially to the entertainment of the State Medical Society at the next annual (1915) meeting to be held in the city of Little Rock.

Adopted.

The meeting closed to meet the first Monday in November.

YELL COUNTY.

(Reported by J. R. Linzy, Sec'y.)

Dardanelle, July 1.—The Yell County Medical Society met in regular session at Danville, June 10. Members present: Robt. Cowger, H. L. Montgomery, C. C. Davis, E. R. Yancey, A. D. Gillem, J. H. Harkness, John Grace, H. G. Rollins and J. R. Linzy.

Two clinical cases of pellagra were before the society, and several other interesting cases were reported.

The meeting adjourned to meet at Plainview on the second Tuesday in October.

SEVIER COUNTY.

(Reported by M. L. Norwood, Sec'y.)

Lockesburg, June 10.—Pursuant to call the Sevier County Medical Society met in Ben Lomond, June 9, with the following present: Dr. Guthrey of Paraloma, Drs. Clington, Musser and Armstrong of Ben Lomond, Drs. McCroskie, Hopson and Norwood of Lockesburg, Drs. Archer, Wisdom, Kitchens, Johnson and Hopkins of DeQueen.

Dr. Musser reported a number of cases in which he had used pituitrin. Dr. Wisdom gave us a paper on "Infantile Paralysis." Dr. Isbell read a paper on "Pernicious Malaria." All visiting doctors were the guests of the local profession for dinner.

Next meeting will be in Horatio on the second Tuesday in July.

MILLER COUNTY.

(Reported by L. H. Lanier, Sec'y.)

Texarkana, June 25.—The Bowie County (Texas) and the Miller County (Arkansas) Medical Society met in this city with the following program:

"The Relation of the Physician to the School," by Prof. George W. Reid, superintendent of the Arkansas Schools in Texarkana.

The paper was very instructive and brought a very interesting discussion.

The society then adjourned until fall.

We wish to report a most successful year. We have had better meetings and larger attendance than at any time in the history of the society. Our program for September 11 and 25 will be as follows:

"Gastric Duodenal Ulcers," by George C. Abell.

"Prostatectomy," by E. L. Beck.

"Malpractice Suits and the Physician's Defense," by Sam C. Ball.

"Fallopian Salpingitis," by W. B. Center.

BOONE COUNTY.

(Reported by F. B. Kirby, Sec'y.)

Harrison, June 2.—The Boone County Medical Society held its regular quarterly meeting in the courthouse, June 2. Dr. Sam Allbright of Bellefonte, vice president, acted as president. Members present: Drs. L. Kirby, J. H. Fowler, C. M. Routh and F. B. Kirby.

Dr. L. Kirby, as delegate to the state meeting, made his report. Among many other interesting things he stated that much of the politics usually so prominent in our State Society meetings was not in evidence at the El Dorado meeting. It was generally agreed that if our State Society could rid itself entirely of this evil, it would do more toward advancement than by any other act.

Several clinical cases were reported and discussed.

No further business appearing, the meeting adjourned until the first Tuesday in September.

LAWRENCE COUNTY.

(Reported by H. R. McCarroll, Sec'y.)

The Lawrence County Medical Society held its regular monthly meeting at Walnut Ridge on July 6. The subject was "Dis-

eases of Children." There were several interesting papers on the program, but only two of them were delivered as called for by the secretary. When a physician is put on the program to get up a paper and he fails to respond or to attend, he not only loses that teaching which comes to himself from the systematic study necessary to do the work, but he disappoints others and becomes a party in assisting to displease instead of entertaining and encouraging those who do attend the meetings.

Dr. T. C. Neece read a paper on "Enuresis" for Dr. F. D. Smith, who was appointed but could not be present.

Dr. G. A. Warren presented an essay on "The Serums and Bacterins in the Exenthemata, with Special Reference to Complications."

Both papers were good, giving us the latest teaching, and were generally discussed.

Refreshments were served.

The following members were present: J. C. Hughes, T. C. Neece, H. R. McCarroll, W. A. Smith, J. M. Stephens, J. H. Stidham, J. C. Swindle, G. A. Warren and G. Max Watkins.

Book Reviews.

HUMAN EMERGENCY.—By Albert Abrams, A. M., M. D., LL. D., San Francisco.

This little booklet contains an abstract of an address by Dr. Abrams before the American Association for the Study of Spondylotherapy, at its meeting in Chicago, September 30, 1913. He states that his new physico-diagnostic methods are not theories, but physico-clinical facts. They have been repeatedly corroborated by necropsy skiagraphy at operations and by histological examinations.

INTERNATIONAL CLINICS.—A quarterly of illustrated clinical lectures and especially prepared original articles by leading members of the medical profession throughout the world. Edited by Henry W. Cattell, A. M., M. D., Philadelphia. Published by J. B. Lippincott Company, Philadelphia. Volume I. Twenty-fourth series, 1914. Price, \$2.00.

Among the many articles in this book we find one on "The Treatment of Nephritis," by Robert N. Willson, Philadelphia.

The volume closes with a hundred-page article on "The Progress of Medicine During the Year 1913."

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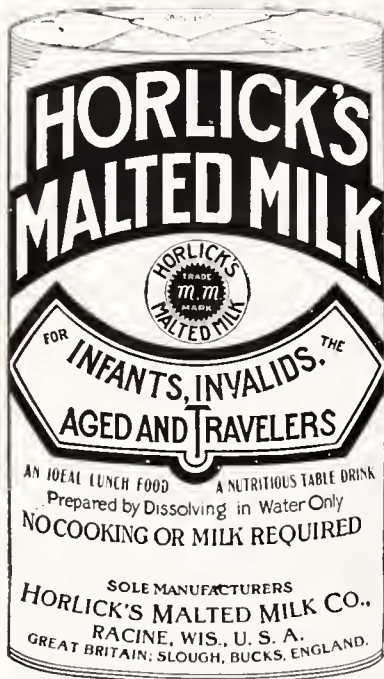
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No. 3

Original Articles.

ANOCI-ASSOCIATION.

BY GEORGE W. CRILE, M. D.,
Cleveland, Ohio.

The Kinetic Theory of Shock postulates (1) that there is in the body a group or chain of organs whose primary function is the conversion of the latent or potential energy derived from the environment into kinetic energy as an adaptive response to stimulation; (2) that among these kinetic organs are the brain, the suprarenals, the liver, the thyroid, and the muscles; (3) that all forms of shock are caused by the overstimulation and consequent exhaustion of these kinetic organs; (4) that three of these organs—the brain, the suprarenals, and the liver—show histologic changes corresponding to each change in the clinical cycle of shock.

These premises have been established by laboratory and clinical researches in which were studied the energy-producing results of prolonged insomnia, of physical injury alone; of physical injury under inhalation anesthesia; of the emotional stimulation of fear; of foreign proteid and toxic stimulation; of physical injury within the territory of local anesthesia; of injections of strychnin and morphin; of severe hemorrhage.

In our laboratory experiments on animals we found histologic changes in the brain, the suprarenals and the liver, after the prolonged application of any stimulus, and that these changes were identical whatever their cause—whether prolonged emotion, trauma, anaphylaxis, the injection of toxins or of strychnin.

These histologic changes ranged from slight hypochromatism through vacuolation of the cell contents to displacement and lac-

ing of the nucleus, the bursting of the cell-membranes and complete disintegration.

We may define *shock* then as the result of an intense stimulation which leads to physical changes in the organs which constitute the kinetic system and which, if carried far enough, will exhaust that system.

If this be true, then every adequate stimulus with or without inhalation anesthesia, whether from trauma or emotion, causes the cells of the organs of the kinetic system to discharge some of their stored energy—that is to say, the sight of the operating room, the spoken word implying danger, the taking of the anesthetic, the instrumental injury of tissues in the course of the operation, the traction of the stitches after the operation—all of these are adequate stimuli.

Obviously, then, the only practical method of preventing the consumption of the energy stored in the kinetic system is the development of a technique which will exclude the stimuli of the special senses and the stimuli of common sensation.

Is there a single anesthetic that will exclude all the noxious or harmful physical and psychical stimuli which accompany a surgical operation?

By blocking nerve conduction local anesthetics obviate the shock-producing effects of local operative injury but they do not protect the patient from destructive psychic strain; inhalation anesthetics exclude psychic stimulation but do not exclude operative stimulation; and general anesthetics introduced hypodermically, being uncontrollable, are excluded on principle. Each anesthetic covers a part of the field, but there is no single agent that *alone* can produce *anoci-association*, which is the goal of operative surgery. We, therefore, do not advocate ether alone, nor chloroform alone, nor nitrous oxid-oxygen alone; we do not advocate local anesthesia alone, nor morphin and scopolamin alone, nor spinal anesthesia alone, but through *selection*

* Read in the Section on Surgery of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

and *combination* of anesthetics we aim to attain an anesthesia that will exclude all shock-producing stimuli and thereby attain *anoci-association*.

We propose to discuss the technique by which a state of *anoci-association* has been attained in certain major operations; to show that not only the immediate operative results but the postoperative morbidity and mortality as well are lessened or eliminated. It may be well first, however, to say a few words regarding the *anoci-association* environment which should be sought and which has a scarcely less important bearing upon the outcome of the operation than has the operative technique itself.

The surgeon's best assurance for the successful outcome of a serious operation would be to have the patient come under his care long before the development of the trouble from which relief is desired. Unfortunately or fortunately—according to one's point of view—this possible factor of success is not within the reach of any individual or surgeon. The surgeon, however, who too often must deal with patients heavily handicapped by factors which, if known in time, might have been controlled, is finding that by a careful, unhastened, patient preparation of his patient he may do much to counteract the adverse conditions.

In other words, the work of the surgeon does not begin in the operating room, nor with the immediate mechanical preparation of the patient for operation, nor does it end with the healing of the physical wound. In the operating room and during the process of healing also the patient must be considered *as a whole*. That is, the surgeon, and the members of his office staff, the hospital superintendent, the interne, the nurse, the orderly—everyone who comes into relation with the patient must bear in mind that even apparently slight factors may contribute—mightily even—to his ultimate welfare. Already we have come to realize to some extent that human beings are integral organisms and that one part cannot suffer without the coincident suffering of all the rest. Yet we are prone to forget that the reverse of this proposition must be true also—that any factor which contributes to the welfare or improvement of the condition of one part will contribute also to the welfare of all the rest.

We have stated the importance of the emotional factor in producing shock. If the natural fear of the approaching ordeal, which is

felt by every normal individual, be augmented by tactless words in a surgeon's office; by an ungracious reception at the hospital; by inconsiderate treatment by a nurse or orderly; by the sound of clanking instruments; by the rough or forced administration of an anesthetic; then the resistance of the patient, which is already depleted by his diseased condition, will be lowered still further. No matter how perfect and non-shocking in itself may be the technique of the operation, the results are still prejudiced by these other adverse factors.

By a cheerful preoperative environment; by a definite dulling of the nerves through the administration of a narcotic; by a nonsuffocating odorless anesthetic; by a local anesthetic to cut off all afferent impulses during the course of the operation; by a second local anesthetic of lasting effect to protect the patient during the painful postoperative hours; by gentle manipulation and sharp dissection—the combination of all these methods—the patient is protected from damage from every factor excepting those which exist in the diseased condition from which relief is sought.

The *anoci-association*, however, does not end in the operating room, nor with the return of the patient to his bed. Postoperative environmental conditions are no less essential than preoperative. To perform a shockless operation on a bad risk and then have the patient distressed and nagged by poor aftercare is like putting tacks in the smooth pavement in the path of an automobile after driving it safely over rough roads. To achieve the shockless operation the patient must be received and carried through a complete *anoci-association*; not only the surgeon himself, but assistants, internes, anesthetists, hospital officials and nurses must be intelligently and specially trained—but above all, it must be borne in mind that no detail is too petty for the careful attention of the surgeon himself.

GENERAL TECHNIQUE.

Morphia and Scopolamin: To mitigate the preoperative dread and to facilitate the induction of anesthesia, a solacing dose of morphin and scopolamin (usually morphin 1-6 grain, scopolamin 1-150 grain) is given an hour before the operation to all patients excepting the aged, the very young, and those whose feeble condition contraindicates the use of these narcotics. The use of morphin serves the double purpose of diminishing the preoperative psychic strain and of actually pre-

venting, to some extent, the damage to the cells of the kinetic organs by the trauma of the operation. Laboratory experiments have shown that in morphinized animals subjected to trauma, the changes in the brain, the suprarenals, and the liver are less than in traumatized animals without this protection; indeed the fact that deep morphinization will almost completely prevent shock has been abundantly proved in both laboratory and the clinic.

The protective effect of morphin is remarkably exhibited in those cases of exophthalmic goiter in which some exceptional local condition causes a break in the complete *anoci-association* of the patient, as a consequence of which the pulse and respiration increase markedly during or after the operation. In these cases, if morphin be given in repeated doses until the respiration and pulse are held stationary or fall, the dangerous exhaustion of the patient will be avoided. The morphin may be given at any time during or after the operation when it is seen that the patient's energy is being expended at too rapid a rate.

Morphin is especially useful also in those cases of acute infection in which emergency operations must be performed. In such cases morphin affords a double protection—it protects the kinetic system against both the infection and the operative trauma. Here also morphin should not be given in one dose, but in repeated doses until the physiological effect is produced. This point will be indicated by the reduction of the respiration to the normal rate or less.

In brief, by proper use, morphin can control the metabolic processes. It should be added that it is not our intention to suggest an increase in the use of morphin in average cases, but to emphasize its usefulness when employed in physiologic dosage in certain exceptional cases.

NITROUS-OXID-OXYGEN.

Nitrous-oxid-oxygen is the anesthetic of choice, as it is odorless; a few inhalations are sufficient to induce unconsciousness; it is less apt to cause nausea than is ether; as it is not a lipoid, solvent it to a given extent protects the cells of the kinetic organs from exhaustion, and it therefore does not impair the immunity of the patient.

In the choice of the anesthetic, however, it should be emphasized that *the patient is the first consideration* and not the prejudice of the surgeon for a certain method. If nitrous-

oxid-oxygen does not fully anesthetize the patient, as may happen in some cases and frequently does with inebriates, then sufficient ether should be given to attain the desired end.

It should also be borne in mind always, that while nitrous-oxid-oxygen is the *safest* of all anesthetics in the hands of an *expert* in the technique of its administration, it is perhaps the most *unsafe* in the hands of the *inexperienced*, and, therefore, it should never be administered except by an anesthetist specially trained in its use.

The anesthetists at Lakeside Hospital and Dr. Teter have administered nitrous-oxid-oxygen 18,250 times for general surgical operations; and 16,714 times for oral operations—making a total of 34,964 general anesthetizations without a fatality.

NOVOCAIN.

Every division of a sensitive tissue—that is, of a tissue supplied with noci-ceptors—is preceded by the injection of novocain in 1-400 solution. This is used routinely in all parts of the body, in all ages, in the debilitated and in the strong, in small and in extensive operations under all sorts of conditions. There are certain salient points to be observed in its use—the tissue to be divided should be completely infiltrated—no nerve filament should be omitted. One might think of the novocain as a stain and consider that only the stained parts are ready for the knife. The infiltrated parts should be subjected immediately to pressure, as firm pressure with the hand greatly increases the anesthetic area of novocain.

QUININ AND UREA HYDROCHLORID.

To minimize postoperative discomfort, especially in abdominal operations, quinin and urea hydrochlorid in a 1-6 to 1-3 per cent solution is injected *at a distance* from the wound. The effects of this local anesthetic last for several days, so that by its use the patient is protected from noci-impulses from the operative field until the healing process has well begun. This local anesthetic can be safely used in all cases in which no infection is present, but is unsafe in the presence of infection because it to some extent diminishes the resistance of the tissues. Quinin and urea usually cause some edema of the infiltrated part which may last for weeks, or even for a month or more, but which ultimately disappears.

Gentle Manipulations—Sharp Dissection: The phylogenetic facts upon which the kinetic theory of shock is founded indicate the necessity for the use of the gentlest manipulations throughout the operation. In this respect the surgeon should at all times govern his movements as he would if the patient were to be conscious of each step in the operation. Pulling, tearing and crushing manipulations awaken phylogenetic noei-associations with consequent activation for defense, and, therefore, exhaust the kinetic organs; and in addition actual coincident trauma is produced by traction in the tissues beyond the zone which is protected by the infiltration of the local anesthetic. On the other hand the division of the tissues with a sharp scalpel is a form of injury which awakens less phylogenetic association and, in addition, produces the least amount of damage to the tissues. Gentle manipulation and sharp dissection by producing the least amount of tissue injury in turn necessitates the minimum amount of healing. *Clean-cut wounds give the least postoperative discomfort.* It should be borne in mind also that trauma, by diminishing their vitality predisposes the tissues to infection. For every reason, therefore, the tissue trauma should be as slight as possible.

In each application of the principle of *anoci-association* the part of the body in which the operation is to be performed must be considered both biologically and pathologically. That is, the technique should be strategically planned to *outwit* the biological defenses; and to cause the least possible further drain on the stores of energy already diminished by the pathological condition from which relief is sought.

To illustrate this point we shall from these two standpoints consider briefly the general application of the principle of *anoci-association* to abdominal operations.

ABDOMINAL OPERATIONS.

Biologic Considerations: Adequate stimulation of the noei-ceptors implanted in the abdominal wall, like adequate stimulation of the noci-ceptors elsewhere, causes muscular response. In the contractile response of the abdominal muscles, however, an increased intra-abdominal pressure is produced, as a result of which, when the abdomen is opened, the smooth, lubricated, intestinal coils slip with wonderful facility out of the wound. Not only does this expulsion of the intestines greatly hinder the operator in his work, but

it is an additional source of injury to the patient, for the added manipulation of the intestines required to replace them adds greatly to the production of shock.

Muscular contractions of the abdominal wall may be prevented by the administration of an anesthetic which will produce in the brain such a deep state of anesthetic paralysis that no adaptive muscular response will be made to the operative stimuli which are received by the brain-cells. Less muscular relaxation is produced by nitrous-oxid-oxygen anesthesia than by either of the lipid-solvent anesthetics—chloroform and ether. For this reason nitrous-oxid-oxygen—a less paralyzing anesthetic—does not prevent the adaptive contractile response of the strong abdominal muscles during injury to the abdominal wall as completely as either ether or chloroform.

To prevent expulsion of the intestines, therefore, one must either employ the lipid-solvent ether in rather large dosage, or one must prevent the impulses of the operative trauma from reaching the brain. This latter result may be accomplished by the use of either spinal anesthesia or local anesthesia.

(a) *Spinal Anesthesia* would be the method of choice had it not three disadvantages: First—spinal anesthesia causes a considerable fall in the blood-pressure because it cuts off nerve communication with the vasomotor center in the brain from a large vascular field—the splanchnic territory and the lower extremities; second—thus far the mortality rate with spinal anesthesia is higher than with ether or nitrous-oxid-oxygen; and, third—the patient being conscious undergoes a heavy psychic strain. Minor disadvantages are postoperative headache and the fact that analgesia is occasionally incomplete.

(b) *Local Anesthesia:* There is ample evidence that many abdominal operations may be painlessly performed under local anesthesia alone; but as with spinal anesthesia in the average patient, that stringent and most exhausting emotion—fear—is excited by the knowledge that the abdomen is open, that serious conditions may arise, and that grave consequences may ensue. Such a psychic ordeal may break down the bravest patient and cause not only mental distress, but, as we have shown already, actual physical injury as well. The flushed, or pallid and sweat-covered face of the conscious patient portrays all too well his deep apprehension and distress—far beyond the possibility of assuage-

ment by any effort on the part of the operator. In routine operations, therefore, the *laparotomized patient should be asleep.*

General Technique: Excepting to the very young, the aged and patients with depressed vitality, 1-6 grain morphin and 1-150 grain seopolamin is administered one hour before the operation. The young, the old, and the handicapped are not given this preoperative sedative dose.

The skin is infiltrated with novocain in 1-400 solution in such a manner as to produce a broad, white elevated strip of skin within which—*strictly within which*—the incision is made. The razor-edged knife at a low speed so controlled that the line of incision may not pass the anesthetized zone divides the skin and the underlying fat. As fat is but sparsely supplied with noei-ceptors, this tissue may be divided down to the external fascia without novocain infiltration.

The external fascia is next infiltrated carefully and is divided by the controlled passage—*not sweep*—of a sharp scalpel, and then in succession the muscles, the posterior sheath and the peritoneum are anesthetized and divided.

As soon as the abdomen is opened quinin and urea hydrochlorid in a 1-6 to 1-2 per cent solution is used in a massive infiltration of the abdominal wall—at a distance from the incision—the infiltration being so complete that the entire operative field is physiologically severed from the brain. The effects of quinin and urea hydrochlorid last for two days or more and minimize postoperative shock and gas pain.

If the principle of *anoei-association* be carried out in every detail, then, no matter what may be the location or the length of the abdominal incision, the intestines will be within the abdominal cavity and the abdominal muscles will be completely relaxed. Under these conditions the entire abdomen may be explored without awakening the noei-ceptor sentinels. If the incision be long, the entire wall may be elevated with the warm, moistened gloved hand and most of the viscera inspected literally. The hand may then go gently but completely over every viscus and explore every nook and corner of the abdomen without disturbing the original, complete muscular relaxation.

It may happen, however, in spite of biologic strategy, that the conditions which are enumerated make it impossible to avoid the

stimulation of noei-ceptors—so that muscular contractions are present. In such a case the nitrous-oxid-oxygen should not be pushed an atom beyond the pink stage, but ether should be added until the needed relaxation is reached—a few minutes and but little ether is usually sufficient to attain this end. In rare instances ether may be used during the delivery of an adherent tumor.

Owing to the complete relaxation of complete *anoei-association* but few if any intra-abdominal pads are required. Nowhere is the law of consequence more truly exemplified than in abdominal operations. In no instance does the punishment more truly fit the crime. Sow roughness and reap a harvest of postoperative distress.

POSTOPERATIVE MORBIDITY.

The final proof of the value of a surgical principle is found in the clinical results of its employment. After operations performed under ether anesthesia alone, surgeons are confronted constantly with a familiar train of disastrous sequelae, painful to the patient and discouraging to the physician. The immediate sequelae include gas pain, nausea, and aseptic wound fever, while the latter results range all the way from painful sear alone to the long train of symptoms accompanying “postoperative neurasthenia.”

Here again biologic considerations teach us the cause of each of these disturbances and show how and why they may be obviated by the strategical maneuvers of *anoei-association*.

It has already been stated that a study of the pulse during and after the operation perhaps gives us our best clue to the value of the protective technique of *anoci-association* and explains the strikingly decreased postoperative morbidity after *anociated* operations. A comparison of 500 cases operated upon under ether and 500 under *anoei-association* showed in the ether cases an increase of 21.6 beats during operation, and of 10.5 in the first twenty-four hours after operation while the *anociated* cases showed a fall of .83 during the operation and a rise of but .85 beats during the twenty-four hours after operation.

Gas Pain: Postoperative gas pain can be explained as a biologic adaptation to overcome infection, since in the course of evolution all abdominal penetrations were infected. As a natural sequence a protective mechanical activity within the abdomen was evolved

as a means of protection. Most infections may be overcome if they can be localized; to accomplish such a localization of an infection in the abdomen, the intestines and the abdominal wall must be kept fixed against each other. To this end, each must be inhibited; the intestines must be distended with gas, the abdominal wall must be rigid. If the intestine be distended with gas and fixed, then digestion must cease. If digestion be arrested, then there is anorexia, or even vomiting to expel food from the stomach. These facts show us how postoperative gas pains are due to a biologic adaptation to overcome infection, and explain their resemblance to incipient peritonitis. Nature does not depend upon the surgeon, or perhaps she knows the surgeon too well. The test of this hypothesis is easily made. If the brain through which this adaptive response is made is kept in ignorance of the incision into the peritoneum (*a*) by progressive novocain blocking throughout the operation, and (*b*) by postoperative quinin and urea blocking to break later communication with the brain through stitch tension, then there should be no gas pains. Clinical experience has abundantly confirmed this hypothesis. It must be remembered that if a single nerve filament escapes the block, there will be gas pains.

Painful Scar: The lesion which produces a painful scar is in the brain not at the site of the wound. It is explained by a fundamental principle of nerve conduction; that is, that a strong traumatic or psychic stimulus produces some change in conductivity along its cerebral arc, the effect of which is to lower the threshold of that arc, so that mere trifles become adequate stimuli. Most familiar examples of this result are the sensitiveness of limbs after fractures and the painful stumps of crushed limbs. Now if an operation be so performed that no strong stimulus reaches the brain, either during or after the operation, then the threshold of the cerebral arc from the wound will not be lowered. Since the threshold is not lowered, contact with the scar or any injury to that part will have no more effect than will contact with any other part of the body. Hence, we see how painful scar may be prevented by complete *anoci-association*. Our clinical data seem to support this hypothesis, although these have not as yet been fully worked out.

Nervousness: The explanation of "painful scar" applies also to postoperative nervous-

ness. When in the night one is threatened with an unknown danger the brain threshold is always lowered, apparently as an adaptation to the more swift and accurate detection of danger. As stated above when one has received a crushing physical injury, there is a universal lowering of the threshold.

During these states of tenseness minor stimuli have major effects, or, in other words, one is "nervous."

The subconscious brain being tortured directly during unblocked operations under inhalation anesthesia, the resultant general effect on the brain thresholds is demonstrably the same as if the injury had been inflicted without anesthesia—that is, after the ordeal of punishment of the subconscious mind during an operation the patient emerges "nervous"—"exhausted"—and since a low threshold is lavish in its waste of nervous energy recuperation is slow. Hence there results a period of postoperative nervousness, of postoperative loss of efficiency. It is obvious—and clinical experience abundantly proves—that the threshold is preserved by complete *anoci-association*, hence the unpleasant, damaging postoperative phenomena are avoided.

Aseptic Wound Fever and Postoperative Hyperthyroidism: Since it is a physical law that any form of force may be converted into heat, and that heat thus produced, if not at once transformed into motion, must increase the temperature of the body affected, we see readily why any stimulus, mechanical or physical, which normally would cause increased motor activity must cause a rise in temperature if complete motor expression is impossible. Anything, therefore, that drives the motor mechanism of the body beyond the point of normal expression will cause fever. Anger, athletic contests, fear, physical injuries, all produce a rapid oxidation of certain body compounds too great for complete translation into motion.

In operations under general anesthesia only, we expected routinely to see some postoperative rise of temperature as a result of the suppressed power of motor response to the physical and psychical injury; but by the use of *anoci-association*, both during and after the operation, we discovered a change of postoperative temperature and pulse-rate. We were therefore forced to the conclusion that, barring infection and the absorption of hemoglobin, postoperative fever is the result of increased oxidation, this being in turn the re-

sult of the psychic and traumatic stimuli of the operation to which natural response has been denied.

The observations led us to a further knowledge of the phenomena accompanying Graves' disease. This disease being due to a disarrangement of the general motor mechanism whereby the threshold of the brain to both psychical and traumatic stimuli has been lowered in varying degree, the stimulus which in the normal individual would cause no appreciable change in pulse or temperature, will, in a case of Graves' disease, drive the brain and body so fast that greatly increased motor activity and a rise in temperature are caused. Anything, therefore, that raises the threshold of the brain to stimuli must diminish the susceptibility to pulse and temperature changes in the patient suffering from Graves' disease as well as in the normal individual. This explains why patients under morphin or in a stupor show little change after excitation, and why an operation performed under *anoci-association* is followed by diminished or no aseptic fever and in Graves' disease by no so-called "hyperthyroidism."

Nausea and Vomiting—Digestive Disturbances: The intensity of these postoperative symptoms depend upon the location of the operation; on the kind of general anesthetic which is used; on the amount of postoperative pain; and on the gentleness or roughness of the operator. Appetite may be driven away and digestion may be broken down by even a simple operation on any part of the body if it be crudely and roughly performed under nauseating ether anesthesia; if the tension of the stitches be too great and the dressings too tightly applied.

On the other hand, nausea and vomiting may be obviated and the digestive impairment will be minimized by the employment of nitrous-oxid-oxygen anesthesia, sharp knife dissection, the gentle manipulation of tissues, cautious dispatch in operating, complete nerve blocking during the operation and for several days thereafter, the careful insertion of stitches and application of bandages. No matter how extensive or what the location of the operation, if it be performed under complete *anoci-association*, a nursing mother will be able to give each regular feeding, and the babe will give no token of digestive disturbance. There may be morphin nausea, however, to the degree ordinarily caused by that drug.

Backache: In the associated operations the patient rests on a water bed. For this reason and since the muscles are not relaxed under the mild nitrous-oxid-oxygen anesthesia, heavy strain on the ligaments and joints is eliminated, and backache is averted excepting that backache which is produced by the technique of certain abdominal operations, such as supravaginal hysterectomy. This too may be avoided by the complete infiltration of the stumps with the nerve-blocking anesthetic. In our comparative study we found that in the postoperative bedside notes of the 500 cases operated upon under ether anesthesia, backache is mentioned in 91 cases, while in 500 cases under *anoci-association* it is mentioned but 30 times.

Infection: Ether anesthetizes the phagocytes as well as the man, and so places the patient in the position of a citadel when at the hour of assault by the enemy the defenders are asleep in the trenches. If nitrous-oxid-oxygen be used, however, the phagocytes remain ready for action and the danger of infection is, therefore, lessened.

Nephritis: The lipid-solvent action of ether is sufficient reason for the ether nephritis as the renal epithelium contains much lipid substance. Then, too, other products of ether solution in various parts of the body are thrown on the kidneys for elimination. The use of nitrous-oxid-oxygen relieves the kidneys from this strain and the danger of nephritis from this cause is eliminated.

Pneumonia: Many theories have been advanced to account for the more frequent occurrence of pneumonia after operations on the upper abdomen than after operations on the lower abdomen, on the back, or on the extremities. That pneumonia is not due to ether alone is proved by its occurrence after operations under local anesthesia; that it is not due to infection alone is shown by the fact that it occurs as frequently in connection with uninfected as with infected wounds; that it is not due to emboli or thrombosis alone is evident since superficial wounds are rarely followed by pneumonia.

The clue to the real cause was found in a comparison of the postoperative behavior of patients operated upon under the old noxious technique with those operated upon under *anoci-association*. After the noxious operation the wound is tender. Now the upper abdominal muscles especially have important

respiratory functions. In each respiratory movement these powerful muscles pull on the stitches which hold together the divided wall. The exquisite pain produced by this respiratory pull causes an inhibition of the muscular contraction on the side of the incision, or on both sides of the incision if it be median. As a result, the excursion of the lower chest wall is diminished so that the lower lobes of the lungs cannot be filled completely. That a lessened exchange of air in the lower lobes predisposes to pneumonia is proved by noting the predisposition to pneumonia in cases of localized pleurisy, in which the pain causes an inhibition of free excursion in the part of the chest which is involved. The resultant pneumonia occurs in that portion of the lung whose free action is inhibited. After gall-bladder operations pneumonia begins not in the left but in the right lobe, whereas, were the pneumonia embolic in its origin the lobes would fare alike.

The diminution in the number of cases of postoperative pneumonia since the adoption of the technique of *anoci-association* is the proof of this reasoning as to its cause. Because of the lack of local tenderness in the field of operation produced by the technique of the operation itself and by the postoperative nerve blocking, there is no inhibition of the respiratory excursions. This also without doubt explains the reduced mortality of operations for umbilical hernia performed with the transverse incision.

My own clinical observations here reported have been confirmed by the personal experiences of my associates and of Bloodgood, Cabot, Codman, and a number of other American surgeons; of Moynihan and others in England. The statements made have been based upon a critical study of the clinical data of operations performed at the Lakeside Hospital under ether alone, under nitrous-oxid-oxygen alone, and under *anoci-association*.

Were it possible to express the subjective sensations of the patient the proof of the value of *anoci-association* would be even more striking. There is no longer any need of the postoperative recovery room; the work of the nurses is greatly minimized; and the clinical aspect, both in and out of the operating room, is altered.

Not only the lessened postoperative morbidity, but a reduced mortality rate also bears witness to the value of the technique by means of which *anoci-association* is attained. A

study of the statistics of the Lakeside Hospital shows that in 1908, the year before the adoption of the principle of *anoci-association*, the mortality rate of all operations performed by my associate, Dr. Lower, the members of my staff and myself was 4.4 per cent; in 1912 the mortality rate had fallen to 1.9 per cent; and last year, 1913, to 1.8.

DISCUSSION.

Dr. W. F. Smith (Little Rock)—The Arkansas Medical Society has been honored by Dr. Crile when he gives us so generously of his time to journey to the southern-most border of our State to deliver this address which has just been our privilege to hear; an address which is a splendid tribute to his brilliance of conception, painstaking and scientific research and logical conclusions.

In my judgment, Dr. Crile's kinetic theory of shock and *anoci-association* will mark an epoch in the conception of, and combating this condition which is the most formidable obstacle of the surgeon, and has been since the time of surgical endeavor. Yet in so important a subject there is a wide divergence of opinion. This is due, I believe, to a lack of understanding, or willingness to understand, the pathology of shock.

Some, whose vast experience give weight to their views, contend that hemorrhage is the principle factor in shock. It is true, low blood pressure follows profound shock, but shock is cumulative in effect due to gradual fatigue and at last exhaustion of the cerebrospinal system caused by the unblocked centripetal impulses of traumatic origin, psychic force or a toxic agent. The definite changes in the nerve cells as a result of such a condition we have just seen.

During shock when there is intravenous introduction of normal saline solution or a direct transfusion there is an immediate resumption of function on account of furnishing material to the heart from the vena cava. This seems to disprove the idea of cardiac inhibition as a factor in shock. There is merely suspension of function instead of inhibition.

The shock in malarial hemoglobinuria is toxic in character and profound. The blood stream is filled with broken-down cells, and I think the patient would be benefited by draining off a portion of this blood and being subjected to direct transfusion in an endeavor to combat the shock. A large introduction of normal saline solution into a vein is not advisable, because there is an escape from the vessel walls of the fluid which defeats the object desired.

Not all investigators agree with Dr. Crile. Gray and Parsons conclude that every nerve carries pressor or depressor fibers to the vasomotor centers. The pressor fibers are more easily fatigued and then the depressor fibers being involved a fall of blood pressure ensues. They claim that low blood pressure is not necessarily an accompaniment of shock. They also claim that there is no anatomical basis of shock in changed nerve cells such as we have seen here illustrated. Also that strychnin is indicated to combat shock.

Boise states that the essential cause of shock is excessive sympathetic irritation manifested mainly by a tonic contraction of the heart and arteries and recommends veratrine to relax the cardiac arterial spasm. The theory of Meltzer is that shock is due to inhibition of all organs.

Dr. Crile's theory of the etiology, pathology and control of shock appeals to me. We know that action is followed by reaction and in an opposite direc-

tion. We know that following violence rest is necessary to restoration.

I have had the pleasure of seeing Dr. Crile operate in his own operating room where the anoci-association was carried out in detail by the use of the nitrous-oxid-oxygen anesthesia; the blocking of the nerves by local anesthesia, thus breaking the nerve connection between the injury and the brain; the guarding against all psychic stimuli, both before and after the operation, by the use of narcotics and sedatives and the environmental factors which would have a tendency to depress or excite the patient are eliminated as much as possible.

Under such conditions I have seen his patients, following severe operations, regain consciousness before leaving the operating room, their condition, apparently, as good as before the operation.

Dr. Runyan (Little Rock)—I have had a little experience in the use of anoci-association after having visited Dr. Crile and observing his technic; but, as he stated, it is difficult for one to be absolutely consistent in the use of anoci-association. I find it is very much like a person who graduates from a medical college, who is very expert in answering questions on asepsis; and you would think if he should go out to do a surgical operation that he would be absolutely perfect in his asepsis. But, when he comes to do a surgical operation, if you watch him for a while, you will see him every now and then become very inconsistent in his aseptic technic. I find myself very much in the same category. When I attempt to use anoci-association, I sometimes forget something.

There is one other point to which I wish to call attention, namely, anoci-association aids us in our abdominal work in that the bowels are more easily kept within the abdominal cavity during operation. We are all familiar with the trouble that we sometimes experience in keeping the intestines within the abdominal cavity during closure of the incision, and more especially where considerable traumatism to the bowels was unavoidable. The use of anoci-association considerably diminishes this evil.

Dr. I. J. Newton (Monroe, La.)—I thank you very much for the invitation to discuss this paper; but I feel entirely inadequate to do it justice. I never had the pleasure of seeing Dr. Crile do his work; but in the very latest works of today that I have read the authors seem agreed that is the right way to do it. And from my experience in witnessing and participating in operations, I am convinced that the position assumed by Dr. Crile on the much-mooted question of shock is eminently correct. I have watched very closely the different opinions expressed by others; and must say his technic seems to be most logical and sensible and is carried out so successfully in his clinical work. Certainly it bears the stamp that we can indorse and which we must indorse.

Dr. Thibault (Scott) (By request of Dr. Crile)—I do not feel like taking credit, on account of something that happened to me purely by accident, for what Dr. Crile for many years has worked out by much painstaking labor and study. I think the credit of being able to block the nervous system for a long time after an operation belongs entirely to Dr. Crile; and the accident of having malarial fever and having to get my quinin with a hypodermic syringe and making the mistake of taking one injection in the site of a previous injection and finding that I had anesthetized the parts was simply a little accident on my part, which has served to mitigate the disaster of being chronically infected with crescents and of having to puncture my own hide with a hypodermic needle.

Dr. Crile (Essayist)—In closing my part of the discussion I wish to say there is nothing more to add.

It is a subject I am very much interested in, knowing what I do of the possibilities of what we can do and the attainments one may reach and the splendidly beautiful aspect that surgery takes on, when the technic is followed out different from that we have been used to. You ought always to urge its advantages after making your laboratory findings. Your patient will always respond and the only thing is that after provoking a response, if you will only remember that while under anesthesia the subconscious brain of your patient suffers just the same as if no anesthetic were given and the patient is punished just the same. There is lots of proof of that in the clinical laboratory, and if we only remember that everything we do to the patient under anesthesia hurts him just the same and does the same amount of harm as if he were wide awake, except the memory part of it, that will make us take away from surgery nearly all of its terrors. It will make our operations very much more pleasurable to reflect upon.

I cannot conclude without paying my very great tribute to Dr. Thibault for the discovery of quinin in urea hydrochlorid. I admire that as a brilliant piece of work, however much he may attempt to minimize or disclaim it.

I must thank you all for your attention and for the privilege of meeting with you.

On motion of Dr. Mann a rising vote of thanks was tendered Dr. Crile for his excellent illustrated paper and the pleasure his visit afforded.

EDITOR'S NOTE.

We quote from the New York State Journal of Medicine comment on Dr. Crile's paper on this same subject read before the 108th annual meeting of the Medical Society of the State of New York.

"It was a most erudite, masterly contribution to the world of medicine, opening up a vista reaching far away to the horizon of a new realm of thought, in which physiology, biology and clinical medicine form a trilogy which, if rightly interpreted, will in some respects revolutionize the present practice of medicine.

"His theory is intense in originality, comprehensive in outline, practical in application, appeals to us as one which had its inception in the analysis of his past experimentations, and from which with infinite labor, assisted by his co-workers, Drs. J. B. Austin, F. W. Hitchings, H. G. Sloan and M. L. Menton, he has evolved not a hypothesis, but a demonstrable truth. Few will attempt to controvert his deductions, based as they are on experimental truth evidence he presented to sustain them.

"We shall essay no analytical comment, lest someone satisfied with the mere outlines would forego the reading of a thesis that should be studied in solitude, where silence will permit mental concentration upon this most brilliant addition to medical knowledge."

THE DIAGNOSIS AND TREATMENT OF SYPHILIS OF THE NERVOUS SYSTEM.*

By Loyd Thompson, Ph. B., M. D.,

Delparde W. Roberts, M. D.,

Little Rock.

Syphilis of the nervous system presents problems for the internist, the neurologist, the psychiatrist, the pathologist, and finally the syphilologist, for no matter what portion or portions of the nervous system are involved, no matter whether the resulting conditions be called cerebrospinal lues, paresis, tabes-dorsalis or tabo-paresis, it is all syphilis.

The history of syphilis of the nervous system began soon after the great epidemic at the close of the Fifteenth Century, but it was not until 1834 that Lallemand demonstrated conclusively that syphilis of the brain substance and meninges did occur. Virchow first described the gummatous character of the specific process, and Heubner pointed out that disease of the cerebral arteries may be due to syphilis. The discovery by the zoölogist, Schaudinn, of the spirochaeta pallida and his publication, together with Hoffman in 1905 of their findings of this organism in the primary lesions and papules, lent new impetus to the study of syphilis. But it was not until 1910 that the spirochaeta, or more correctly the treponema pallida, was demonstrated in the tissues of the nervous system except in fetuses. In that year, however, Ranke demonstrated the organism in the pia mater and the blood vessels of the cerebral cortex taken from a child with hereditary syphilis. In the same year also, Strassmann reported the finding of the treponema in a cerebral gumma. Since that time numerous investigators have found the organism in various portions of the nervous system and spinal fluid in the so-called cerebrospinal lues. But it was left for Noguchi and Moore¹ to demonstrate the treponema deeply imbedded in the brains of paretics and spinal cords of tabetics, and thus prove beyond a shadow of a doubt the opinion held for years by a few psychiatrists, among them Dr. J. L.

Greene, that without syphilis the general paralysis of the insane could not occur.

The diagnosis of syphilis of the nervous system resolves itself arbitrarily into the location of the treponema and its resultant inflammatory processes.

If the cortex be involved, psychic symptoms result; if the base, or subcortical region, be involved, focal symptoms, both sensory and motor, involving one or more of the cranial nerves; if the spinal cord alone be involved, there would be both sensory and motor symptoms involving the distribution of the spinal nerves and also the cortico-spinal tracts. If there is an involvement of the cortical region, subcortical or basal, and the cord, one would naturally expect to find symptoms involving the avenues of consciousness, disordered perception, ideation, reason, judgment, and also sensory and motor disturbances, involving both the cortico-spinal and the spino-muscular tracts.

Patients suffering from syphilis of the nervous system when admitted to our state institutions for the care of the insane usually do not present much difficulty in their diagnosis, because they have advanced to such a stage and the destructive, inflammatory process has been allowed to progress to such an extent that gross changes have ensued. Therefore, the question of universal significance regarding these patients is that their condition be recognized in its incipency so that the proper treatment may be instituted before irreparable damage has been done.

The syphilitic diseases of the nervous system are tabes, paresis, certain forms of myelitis, softening of the brain and spinal cord, meningitis, endarteritis, and gummatous formation constituting tumor.

Each of them, it matters not what the seat or extent of the morbid process, causes symptoms which taken together constitute well-defined clinical entities, and as such may be diagnosed with readiness and certainty. Many other disorders of the nervous system and especially functional ones, neurasthenia, headache, states of unattributable depression have, since the introduction of the Wassermann test for the existence of syphilis, been shown to be dependent on this infection.

Paresis in its incipient stage is usually diagnosed as neurasthenia and treated as such until irreparable damage has ensued. The constant characteristic symptoms of the early phase of paresis are first of all the psychic disturbances, which constitute essentially

* Read in the Section on Dermatology and Syphilology of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

¹ Noguchi and Moore. A Demonstration of the Treponema Pallidum in the Brain of Cases of General Paralysis. *Journal Exper. Med.* 1913, XVII, 232.

gradual alterations in the intellectual and moral personalities. Lapses of memory, errors in the work which the individual has been accustomed daily to perform, rapid loss of acquired habits, indolence and indifference to the ones dearest and nearest as well as to his own personality, loss of the usual prudence and reservation, defect in moral conception, together with either a state of depression or else exaltation accompanied by an unusual euphoria and optimism, are the conspicuous signs indicative of oncoming parietic dementia. The peculiarities which particularly characterize the early parietics are, first, his inability to recognize the morbidity of all these alterations in his personality; second, the total lack of criticism of his own acts and conduct.

The apoplectic, epileptic and aphasic manifestations must be of brief duration to be characteristic of early paresis. The inequality and irregularity of pupils are other diagnostic signs of early paresis. The knee jerks are usually lively and accompanied by tremors of the tongue and extended fingers; however, these signs are found in other neurological conditions. The early parietic is incapable of giving a connected history of his trouble. He frequently interrupts his speech and forgets what he said previously. When reminded he does not attach any importance to it. It is exceedingly easy to make him change the train of his thoughts, which are, indeed, unstable. Frequently the expression of his face does not correspond to the subject of the conversation, resulting in apparent emotional deterioration.

The onset of paresis is gradual and insidious in character. A man who gives a negative specific history and who has been unusually successful in a financial way begins to make bad investments, and loses a considerable part of his wealth before his relatives or family physician recognize his mental incapacity. This is, indeed, a sad indictment of our diagnostic ability, and should never occur even if there are no appreciable mental or neurological findings which would warrant a diagnosis of organic brain disease. Such patients should have an immediate investigation of their sero-cytology by a matured worker in this branch of medicine, and no amateur should be entrusted with work of such vital importance to the patient's future welfare.

The consideration of cerebrospinal syphilis and its differentiation from paresis in

their incipient stages is one that taxes the diagnostic acumen of the most learned neurologists. We must, therefore, look for assistance in the general picture and the evolution of the symptoms. In cerebrospinal syphilis at the onset we find a marked diminution of the intellectual function; moreover, the onset is usually acute. In initial paresis the onset is usually slow and insidious and the intellectual defect is less marked at first. In cerebrospinal syphilis there is a severe headache, usually localized in the frontal region and aggravated at night. It is continuous and may last a week. Headache, especially of this nature, is not encountered in paresis. The psychic symptoms consist of clouding, profound apathy, somnolence, and a special dullness in the facial expression. Such a picture is certainly different from that we see in initial paresis. Besides, there is never the optimistic carelessness and general exaltation in the motor and sensory spheres which are observed in the expansive form of paresis. An interesting feature of cerebrospinal syphilis is that the reasoning power may be totally preserved, a fact which is not observed in paresis. Cerebrospinal syphilis is usually accompanied by focal symptoms, such as ocular changes, optic atrophy, contraction of the visual fields, and a hemianopsia. Palsy of other cranial nerves, symptoms of spinal cord involvement, such as exaggerated knee jerks, Babinski, ankle clonus, changes in the sensation in the limbs, hyperesthesia or hypoesthesia, and symptoms pointing to the involvement of the sphincter of the bladder. In early paresis these symptoms are not, as a usual thing, observed. The course of cerebrospinal syphilis is characterized by great variability and mobility of the symptoms which become either exaggerated or ameliorated, and are very susceptible to vigorous antisyphilitic treatment. To sum up, we may say that the richness of symptoms in syphilis of the nervous system is such that with a minute analysis it is possible in almost every case to reveal some particular feature indicative of the existence of a localized focus in the brain and spinal cord.

The early diagnosis of tabes-dorsalis, which is nothing more than syphilis of the spinal cord, affords no very great difficulties. It is usually ushered in by paresthesias, such as numbness and tingling in the legs, formication, a sensation as if the limbs were asleep, and as if the patient was walking upon cotton or pins, unusual sensations of heat or cold.

Itching or burning are usually observed. Pain is a very serious and distressing symptom. It is usually sharp, shooting in character, and usually begins on the inner or anterior surface of the thigh and radiates down the limb. Sphincter disturbance is frequently an early manifestation. Absence of knee jerk, irregularly circular pupils, with a limited excursion to light, is almost pathognomonic of early tabes.

The pupils may be equal in size and regular in outline, yet their reaction to light develop a condition wherein they are irregularly circular when in contraction, and this fact alone is sufficient to warrant a diagnosis of the classical Argyle-Robertson pupil. This pupillary phenomenon has been called to our attention by Dr. J. L. Greene, who was, as far as we are able to ascertain, the first in the field of neurology to observe it, and has been verified by us in numerous instances.

The laboratory aids to the diagnosis of syphilis of the nervous system are the so-called "four reactions," viz, the Wassermann reaction on the blood, the Wassermann reaction on the spinal fluid, the globulin reaction, and the cytological count of the spinal fluid. To these may be added the examination of the spinal fluid by Fehling's solution and the colloidal gold test as applied by Lange. We may further add that a number of investigators² have demonstrated the *Treponema pallidum* in the spinal fluid during life by microscopical examinations and animal inoculations. But for clinical purposes these methods are not practical.

The Wassermann reaction as performed by us is the modification described by one of us³ with the titrations proposed later⁴. Cholesterolized antigen, which has been shown by Walker and Swift⁵ and one of us⁶ to be more delicate and more reliable than any antigen yet proposed is used. The Wassermann reaction on the spinal fluid performed in the

same manner, except that larger quantities are used (from .2 to 1 c.c.).

A number of methods of examining the spinal fluid for an increase in globulin have been proposed. We prefer the one described by Nobuchi⁷.

In counting the lymphocytes in the spinal fluid, no diluting or staining solution is necessary. A drop of the fluid is placed in the counting chamber in the same manner as for counting the cells of the blood, the count is made and the calculation for 1 c. mm. performed. While a Turk, or better still a Fuchs-Rosenthal counting chamber, is desirable, it is not at all necessary, as quite accurate results may be obtained with a Thomas-Zeiss chamber if several counts are made.

We do not consider the examination of the fluid by the use of Fehling's solution and the colloidal gold test, while perhaps of some value in themselves, as adding anything to the results found with the "four reactions."

The relative value of the latter may be summed up briefly, as follows: A positive Wassermann reaction on the blood shows that there is existing syphilis, but does not necessarily mean syphilis of the nervous system. A negative reaction is of practically no significance, as in all of the conditions resulting from syphilis of the nervous system it may be either positive or negative, depending probably on the early treatment. A pleocytosis and an increase in globulin show almost conclusively that there is organic disease of the central nervous system, but not necessarily specific. Nonne⁸ states that a moderate pleocytosis may be found in compression of the spinal cord and in intramedullary tumor. The same may also be said of an increase of globulin. A slight increase in the number of lymphocytes may also be noted in those having suffered with syphilis with absolutely no clinical symptoms of organic nervous disease. This is not true of the globulin reaction, as it is never found positive in the absence of organic involvement of the central nervous system. Both reactions are found almost constantly positive in specific infection of the brain and cord; some authors stating as high as 100 per cent. In making a differential diagnosis of the location of the specific involvement these

²Hoffman: *Dermat. Ztschr.*, 1906, XIII, 561. Dohi & Tanaka: *Jap. Ztschr. f. Dermat. u. Urol.*, 1905, v 12 Babes & Janes *Berl. klin. Wchnschr.*, 1905, XIII, 865. Rach. E. *Zahrb. f. Kinderh.* XXXV No. 2. Nichols & Hough: *Jour. A. M. A.*, 1913, LX, No. 2, p. 108.

³Thompson, Loyd: *Arch. of Int. Med.*, May, 1913, p. 512.

⁴Thompson, Loyd: *Arch. of Int. Med.*, to be published.

⁵Walker & Swift: *Jour. Exp. Med.*, July, 1913, p. 96.

⁶Thompson, Loyd: *Jour. A. M. A.*, May 9, 1914, p. 1458.

⁷Noguchi, H. *Serum Diagnosis of Syphilis*. Phila., 1909.

⁸Nonne: *Syphilis of the Nervous System*. Phila., 1913.

two reactions are of the utmost importance. In general paralysis and tabes the pleocytosis and increase in globulin are usually only moderate in degree, but in so-called cerebrospinal lues a marked increase is noted, the lymphocytes running as high as nine hundred per c. mm. We have shown, however, that sometimes following a paretic convulsion and just before death from paresis the pleocytosis falls markedly.

The Wassermann reaction on the spinal fluid to our minds is the most important of the "four reactions," for if it is negative with a large amount of fluid (1 c.c.) it will rule out syphilis of the nervous system. It has been shown, however, that a positive may be found in certain cases of primary and secondary syphilis without nervous involvement. It is constantly and strongly positive in paresis and less strongly positive in tabes and cerebrospinal lues.

The first requisite for treatment of syphilis of the nervous system is a competent serologist, as only by thorough laboratory examinations can any definite conclusions be reached concerning improvement. The treatment of syphilis of the nervous system is the treatment of syphilis plus specific medication aimed directly at the tissues involved. It is our practice to give mercury nearly to the point of salivation. We use the succinimid intramuscularly and have given as high as eleven grains before the desired result was obtained. The mercury is followed by potassium iodide in rapidly increasing doses until free iodine appears in the urine. As high as 1,000 grains per day have been given. Salvarsan is then administered intravenously in .6 gram dose, to be followed in a few days by a series of four or five injections of .3 gram of neosalvarsan three to five days apart. The serology and cytology of the patient are now worked over, and his future treatment governed entirely by the laboratory findings. We consider it of the utmost importance to give all four forms of medication as it may be possible for the treponema to develop a resistance to the action of one of them, and each case must be studied and treated with regard to the individual peculiarities.

In 1912 Swift and Ellis⁹ proposed the injection of salvarsanized serum directly into the spinal canal. The method of procedure is to administer a dose of salvarsan intra-

venously and one hour later to withdraw forty to fifty c.c. of blood, allow the serum to separate and after inactivation at 55 C., for one-half hour and mixing with equal parts of salt solution to inject into the spinal canal.

The intraspinal injection of old salvarsan is impossible on account of its caustic effect, but a number of investigators¹⁰ have used neosalvarsan in this manner. The method proposed by Ravaut and reported in this country by Wile¹¹ is probably the best. The neosalvarsan is dissolved in distilled water to make a 6 per cent solution (.3 gram to 5 c.c.), in which solution each drop will contain 3 mg.

The dosage is from 3 to 12 mg., or 1 to 4 drops. A spinal puncture is made in the ordinary manner and after a small quantity of the fluid has escaped, a syringe containing the neosalvarsan is fitted onto the needle and is filled with the spinal fluid, thus mixing with the drug. It is then slowly reinjected.

As a final word in the treatment of syphilis of the nervous system, we wish to state our observation that hydrotherapy, especially the Turkish and Russian baths, the full tub, the Scotch-Douche, shower and needle sprays, are all distinct aids in the absorption of the mercury and the prevention of salivation, and soreness following the injection.

During the past eighteen months, we have seen and observed sixty cases of syphilis of the nervous system, most of them patients in the Arkansas State Hospital for Nervous Diseases. Of these sixty cases, forty-six were paresis in men, three paresis in women, nine cerebrospinal lues, and two tabes-dorsalis.

About 25 per cent of the cases of paresis when received were in the terminal stages and treatment was not instituted. All of the cerebrospinal syphilis cases and one of the tabes cases received treatment.

Of the thirty-six paresis cases which received treatment, ten showed absolutely no improvement whatsoever, either in the mental or neurological symptoms or in the laboratory findings. Sixteen showed no improvement in their mental or neurological symptoms, but their laboratory findings were better; that is, either the intensity of the Wassermann was reduced or the pleocytosis and globulin reaction were lessened. The re-

¹⁰Weshselmann: *Deutsch. Med. Wochenschr.*, 1912, XXXVIII, 1446. Marinesco: *Ztschr., f. Phys. U. diat. Therap.*, 1913, XVII, 194. Marie & Levaditi: *Bull. et em. Soc. med. d. hop. de Paris*, Nov. 18, 1913.

¹¹Wile: *Jour. A. M. A.*, LXII, No. 15, p. 1165.

⁹Swift & Ellis: *N. Y. Med. Jour.*, July 13, 1912.

maining ten cases showed marked improvement both mentally and neurologically, as well as in the laboratory findings, while four of them have apparently been completely cured.

All of the nine cases of cerebrospinal syphilis showed improvement, and in most of them the improvement was marked in all respects.

The one case of tabes treated shows marked improvement in that the syphilitic process seems to be arrested, although the residuals are still present.

The following two cases are fair illustrations of our series which have been treated:

Case No. 6581—Male; age 26, American, single; had manifested symptoms of insanity three or four months previous to his admission to the hospital; gives specific history several years ago. Family history was negative. Physical examination was negative. His neurological examination showed inequality of pupils with increased tendon reflexes. Mental status showed depression and olfactory and auditory hallucinations with unsystematized delusions of persecution. The laboratory report showed a 4 plus positive Wassermann on the blood and spinal fluid with a pleocytosis of 28 and a positive globulin. The diagnosis of paresis was made. He was immediately placed on two-fifths grain succinimid of mercury daily until he had received four grains. Then he was placed on potassium iodide, 90 grains daily, increasing 30 grains each day until he was taking about 720 grains daily. Following this he was given .6 gram salvarsan intravenously with no untoward effects. In one month this was repeated. The serology and cytology continued unchanged, and he was again in three months given the same treatment without any untoward effects. As his condition remained unchanged he was again, in two months, given .6 gram salvarsan intravenously and in one hour 40 c. c. of his blood were withdrawn and a 50 per cent solution of salvarsanized serum was made in normal salt solution, inactivated and 30 c.c. administered intraspinally without any untoward effects. This patient's mental and physical condition, as well as his laboratory findings, remain unchanged, which clearly illustrates the fact that some cases of syphilis of the nervous system will not react to treatment.

Case No. 6872—Male; age 46, American, married; manifested symptoms of insanity about six months; imagined that he was rich

and making lots of money. Specific history denied. Family history negative. Physical examination negative. Neurological examination showed inequality of the lower tendon reflexes, coarse tremor of the extended fingers and a fibrillary tremor of the tongue. Pupils were equal in size, but slightly irregular in outline, and their reaction to light was sluggish. The mental status showed an emotional attitude of slight exaltation, numerous ideas of self-aggrandizement, and unsystematized ideas of persecution. There was marked lowering of the moral tone and an inability to recognize his business inefficiency. The laboratory findings were a 3 plus positive Wassermann on the spinal fluid with a pleocytosis of 50 and a positive globulin. The blood was negative. The diagnosis of paresis was made. He was given succinimid of mercury until he had received four grains, after which the potassium iodide in rapidly increasing doses until he showed symptoms of iodism. Then he received .6 gram salvarsan intravenously. After three weeks he was again given mercury, iodide and salvarsan without any untoward effects. His laboratory report after this treatment was negative. He was sent home on parole for one month and again returned to the hospital for further treatment. At this time he received a series of neosalvarsan .3 gram every third day until he had received five injections. Again his serology and cytology were negative. Again he was permitted to leave the hospital on parole and will return at the end of three months' time for another spinal puncture with Wassermann on the blood and fluid. This case apparently has recovered without any degree of dementia, and clearly demonstrates what can be accomplished in the early stages of syphilis of the nervous system when properly and vigorously treated.

CONCLUSIONS.

After observing sixty cases of syphilis of the nervous system we have reached the following conclusions:

1. No matter what the resulting conditions be called—paresis, tabo-paresis, cerebrospinal lues, or tabes-dorsalis, it is syphilis.

2. A certain small percentage of cases of syphilis of the nervous system can be cured.

3. In a larger percentage the process can be so arrested that the patient, while perhaps unable to pursue his former vocation,

can enter some more simple occupation, and not be dependent upon the state.

4. The time to treat syphilis of the nervous system is before these tissues have been involved; that is, in the primary and secondary stages of the disease, and not to be content with an apparent cure of the clinical manifestations or even with a negative Wassermann reaction on the blood, or finally even with a single negative Wassermann on the spinal fluid, but to insist on a thorough serological and cytological examination by a mature pathologist every six months for a period of five years.

We wish here to express our gratitude to Dr. J. L. Greene, superintendent of the Arkansas State Hospital for Nervous Diseases, for his encouragement and invaluable aid in the observation and treatment of the series of cases which form the basis of this paper.

DISCUSSION.

Dr. A. U. Williams (Hot Springs): I listened with a great deal of interest to the Doctor's paper. It is certainly a most excellent one, and I think perhaps I learned something. I believe, in the light of some recent developments, that in some cases that I have treated I pushed the treatment a little too far at times. I notice that the Doctor states that he gave succinimid of mercury until four grains had been used. I observed in a recent case of a patient we had under treatment when I began to get the constitutional effect of my mercury, if I had pushed it a little further my patient would have retrograded, and I think I learned from the Doctor that in the future I will be a little more careful and a little more observant as to the effect of the mercury; and, if I interpret his meaning right, I will suspend the mercury at the first symptoms of constitutional effects.

Dr. Abner Cook (Hot Springs)—I want to ask Dr. Thompson a question in regard to two statements. The first is that he gave 1,000 grains of potassium iodide daily. The next statement is that potassium iodide should be given until free iodine appears in the urine. It is a natural conclusion there that it would take in any case 1,000 grains of potassium iodide to get free iodine in the urine. The second point in Dr. Thompson's paper is the Turkish and Russian baths. I could never see, from a medical or therapeutic point of view, the value of the shock entailed in either the Russian or Turkish baths. I object to the use of baths in treating syphilis, particularly syphilis of the nervous system. The Turkish and Russian baths will very quickly shut off elimination—a very undesirable feature. A very moderate bath, particularly one of great radio-activity, would be better than the Turkish or Russian baths. The care of syphilis of the nervous system depends upon the extent of the lesion. If syphilis of the nervous system is treated while it is active and before degeneration begins, it is curable. Frequently the inflammatory or gummatous condition will leave a degenerated nerve tract. There is no very dependable rule to be followed out. We find the more highly organized a tissue is the less apt it is to degenerate, and nerve tissue is the most highly organized tissue we have.

Dr. E. A. Purdum (Hot Springs)—I would like to add to the recent cases of Dr. Thompson two cases purely of general paresis which showed rapid improvement and almost returned to normal condition as far as the clinical symptoms were concerned. I cannot say as to the final analysis of the blood. That wasn't done. I would like to ask the reason for substituting neosalvarsan after several doses of salvarsan have been given.

Dr. W. T. McCurry (Little Rock)—Only a few months ago a young man presented himself to me complaining of violent iritis of one of his eyes. The history was about this: He denied having had syphilis, but admitted having had a sore on his penis a few months ago. While in Boston he was treated by a physician who at that time gave him a dose of 606 and told him he was cured, but he presented himself to me with a well-defined case of syphilitic iritis. I caused him to be put to bed and put on anti-syphilitic treatment, which with the addition of atropin cleared up his eye in about three weeks.

Dr. A. U. Williams (Hot Springs)—Regarding Dr. Cook's remark about the baths, I find in my experience that we should be careful in bathing these people, too. I have had a number of patients take the usual treatment, and some of them, as Dr. Thompson said, got along very nicely, and in clearing them up I gave them a few hot baths to finish them up. When I give a man a very hot bath, I invariably put him to bed again and rest him up for quite a while before he can get back to where he was before I gave him the hot baths.

Dr. Thompson (Essayist)—Answering Dr. Cook's question regarding the potassium iodide: It is unusual to give that amount in order to secure free iodine in the urine. Usually we don't have to give more than 100, 200, or 300 grains a day to get free iodine in the urine, but in some cases it runs up that high. In regard to the Russian and Turkish baths, we consider that in giving them we assist in the absorption of the mercury and prevent the soreness which is very frequent in cases of injections of this salt of mercury without the baths. We have had scarcely any complaint from the patients who have had the baths, and those who have not had them have most all complained. Regarding the change from the salvarsan to the neosalvarsan, we have a theory—and it is just a theory—and has not been proven except in this way: The first theory is this: The treponema possibly develops a resistance to one form of medication, and if we should use another specific form of medication we are going to get it. As I say, that is in the theory only, except we have found that since we have started in giving our treatment in this manner—that is, giving mercury, iodine and salvarsan, and then neosalvarsan—we have had better results than before we commenced doing so. Our series of cases is not large enough to pass a very definite opinion upon that one point, I will admit, but, however, we are working on it all the time, and hope some day that we will be able to say more definitely about it. At least, we get as good results using the neosalvarsan, and it is so much easier to give and there is so much less danger of any untoward effects. I will say in this connection that we have absolutely no untoward effect with our salvarsan whenever we use freshly distilled water in preparing it. We insist upon that. Usually the water is distilled on the morning it is used; sometimes immediately before it is used.

THE JOURNAL

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Notice of deaths, removals from the state, changes of
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umns of this Journal, no matter how meritorious they
may be.

Editorials.

THE CHARITY HOSPITAL MOVEMENT.

The Journal in its June issue referred to the inauguration of a movement for a State General Hospital to be located in Little Rock under the direction of the Medical Department of the University of Arkansas, as perhaps one of the most important things done at the meeting at El Dorado in May.

The movement was furthered at a meeting held in Little Rock last month, at which time a committee was appointed to formulate plans and provide ways and means to place the matter properly before the state legislature which convenes in January next. The credit for reviving this movement belongs to the Arkansas Tulane Society. The suggestion was made at the society's annual banquet and a committee was then and there appointed to take the initial steps. It is to be hoped that the Arkansas Tulane Alumni and the Alumni of the Medical Department of the University of Arkansas, as well as the State Medical Society, the county medical societies and physicians generally throughout the State, will give their hearty support and co-operation to the movement. Indeed, every good citizen of the state, outside the profes-

sion as well as in, should favor the project. It may not be generally known among the laymen that Arkansas is the only state which, having a state university medical department, has no state general hospital in connection with it. We have excellent eleemosynary institutions for the blind, the deaf, the insane and the tubercular, but no provision for the treatment of general diseases other than what provision is made by the counties containing the larger cities, where it is possible to maintain a county hospital. In the less populous counties the provision for the indigent sick is wholly inadequate.

The problem of how to increase the efficiency of our medical school is engaging the attention of the faculty, the State Medical Society and physicians generally. The value of such daily clinics as a charity hospital would afford is inestimable, and, indeed, it is essential. If it is helpful to the student it is more so to the patient, because, nowadays, every one understands that the modern hospital with an up-to-date equipment, staff of competent resident and visiting physicians and surgeons, post-graduates, students and trained nurses, affords the sick better treatment, closer watching and facilities for operations that are impossible otherwise. It is for these reasons, and, further, because the public health is of paramount importance, that the movement for a charity hospital deserves, and should have, the support of every loyal citizen of the state, layman as well as the physician.

WELCOME TO THE FOLD.

We hasten to welcome into the fold of Medical Journalism The Journal of the Florida Medical Association, Volume I, Number 1, of which, dated July, 1914, has been received. Unlike our brethren of the lay press we have no jealousies nor rivalries. Politics, factional differences, religion, personal profits, do not disturb the medical press; hence, we welcome all newcomers. The Journal of the Arkansas Medical Society has frequently urged its readers to subscribe to the Journal of the American Medical Association, the Southern Medical Journal, and other publications in addition to the journal of their own state society. More medical journals of repute means wider diffusion of knowledge, and we should like to see every state medical society publish a journal.

The Florida Journal starts out splendidly and along recognized ethical lines. Very

properly it adheres to the standard set by the Council on Pharmacy and Chemistry of the American Medical Association in accepting advertising matter which comes under medical and pure food purview. But it does not stop at strictly medical journal advertising for we note that its silver-tongued solicitor has beguiled bankers, insurance agents, automobile manufacturers, hotel men, jewelers, sporting goods dealers, tailors, hardware dealers, and other merchants into signing advertising contracts.

The Florida Journal is strictly up-to-date. It is well edited; it has timely papers from progressive physicians, a synopsis of the proceedings of the A. M. A. at Atlantic City, reviews of current medical literature and excerpts from medical publications clipped with discrimination.

The Florida Medical Society has lived forty years without a journal and the need of one is evidenced by the editorial statement that of 1,177 physicians in the state only 238 are members of the A. M. A. and 500 members of the State Society. If the Journal keeps up the gait it starts out with, the society will never be without a live organ in the future and the stimulus it will give the society will be evidenced in a rapidly increasing membership.

ADDITIONAL ADVERTISING PATRONAGE.

The leading manufacturers of the country to whom medical journals offer a field for advertising recognize in the Journal of the Arkansas Medical Society one of the best of such mediums in the United States. Last month we entered upon new contracts with Mead-Johnson Company, Horlick's Malted Milk Company and Uncle Sam's Breakfast Food Company. It is superfluous to add that the products put out by these firms conform strictly to the requirements of the Council on Pharmacy and Chemistry of the American Medical Association, as well as to those of the State and Federal pure food laws—otherwise their advertisements would not appear in the Journal. These manufacturers are entitled to the support of our readers on more grounds than one. Their products are meritorious; their form of advertising is wholly acceptable to ethical journals—and they are our advertisers, hence we should reciprocate. Our readers should bear in mind that our advertisers are business men and when they

pay out good money for advertising they expect results. If they do not get them they will not renew their contracts. Without its advertising columns the Journal could not be maintained except at prohibitive cost. The Journal belongs to the Society. It is not a venture for personal profit to any individual. It is to the interest of every member of the Society to see our Journal prosper and keep on improving and enlarging its sphere of usefulness. Our advertisers can only arrive at knowledge of definite results by direct communication. We want our readers not only to patronize our advertisers whenever they have use for their products, but in ordering or otherwise negotiating with them to state that they saw their advertisement in the Journal. In no other way is it possible for our advertisers to know positively that they are getting results from the use of our columns.

THE SEXUAL HYGIENE FAD.

The Journal a few months ago commented, editorially, on the extravagances of the Eugenics faddists. Concurrently with that fad is the sexual hygiene fad; and it is gratifying to note that speakers at the National Education Conference such prominent educators as Ella Flagg Young, in no uncertain terms, condemned the extremists who would have sexual hygiene taught in the public schools indiscriminately to mixed assemblies of boys and girls.

These extremists base their theories on the absurd assumption of dense ignorance of the mysteries of sex existing in our ignorant as well as innocent young girls and boys.

The play, "The Blindness of Virtue," illustrates the lengths to which this false assumption may carry well-meaning people. This foolish play rests on the assumption that a well-bred girl, the daughter of a worldly English vicar, had been reared in such childish innocence of sex that, ignoring all conventions, she saw no harm in visiting, clad only in nightgown and kimono, the bedroom of her lover at early morning, and entering without even the formality of knocking. And this silly stuff had the indorsement of the Bishop of London, just as an equally far-fetched "white slave" motion picture had the indorsement of that eminent reformer, the Reverend Dr. Parkhurst of New York. These gentlemen doubtless mean well, but they are very easily persuaded by smooth press agents

and current faddists that a great moral lesson is conveyed by certain books, plays and pictures which, in fact, have the opposite tendency.

These enthusiastic faddists entirely lose sight of the force of "suggestion." A rabid minister not long ago preached a sermon on dancing to a mixed congregation of men, women, children and the youth of both sexes into which he introduced, as argument, matter concerning passion, which no one would dare to print. And this, God save the mark, in the name of morality! What he really did was to suggest to his hearers that there were hidden pleasures of the dance to which they were utter strangers, and perhaps prompted them to become acquainted with them.

To attempt to teach sex hygiene in mixed schools is to imbue the students with an embarrassing sex consciousness from which it is impossible to escape.

Certainly the youth of both sexes should be told all that is necessary for them to know. They should be duly warned of the dangers that beset the unwary. But the home is the place to learn those things and parents or near relatives should be the teachers. Or, if such matter must be included in the course of duty, it should be permitted only on the condition that men teachers talk to the boys and women teachers to the girls.

But there's a heap of misconception about the alleged ignorance of youth in the Twentieth Century, as every man of the world and every physician well knows. If, for instance, the innocent young brides knew less, instead of more, there would be less race suicide.

Personals and News Items.

Dr. Washington McRae of Little Rock visited in Prescott last month.

Dr. W. H. DeClark has moved from Grayson, La., to Winchester, Ark.

You are missing something if you neglect the advertising section this month.

Dr. C. A. Henry and family of Sparkman have returned from Dallas, Texas.

Drs. F. Vinsonhaler and M. D. Ogden of Little Rock left last month for Europe.

The state legislature of Louisiana recently passed a model vital statistics bill.

Dr. and Mrs. G. M. Temple of El Dorado have returned from a visit with friends in Camden.

Dr. Charles E. Perkins of Springdale was recently made a Fellow in the American College of Surgeons.

Dr. F. P. Vines of Hot Springs has moved his office to the second floor of the New Thompson block.

Dr. W. P. Parks of Mena has been appointed superintendent of the Hot Springs reservation at Hot Springs.

Drs. J. Hal Neal, Jr., of Fort Smith, and John T. Perry of Greenwood, have been appointed health officers of Sebastian County.

The advertiser judges the value of our Journal by the responses to his advertisement. Are you doing your part?

If you know of a firm which you think could advertise with profit in The Journal, write the editor, 810 State Bank building, Little Rock.

Dr. F. L. Castelberry, Little Rock, has opened offices in the Bankers Trust Building and announces his practice limited to diseases of the eye, ear, nose and throat.

Drs. A. E. Harris, M. D. Ogden, O. K. Judd, and A. M. Zell have moved from the Urquhart building to Suite 321 Bankers Trust building, Little Rock.

Drs. William H. Deaderick of Hot Springs, and C. W. Garrison of Little Rock, have been named on the Malarial Committee of the National Drainage Congress.

Our County Secretaries Association continues to grow. If we have not heard from you, Mr. County Secretary, please write to Dr. Thomas Douglass, Ozark, Arkansas.

It should be remembered that we accept new advertising only after a careful investigation of the standing of the advertiser, and an O. K. from the Council on Pharmacy and Chemistry of the A. M. A.

Dr. J. P. Runyan of Little Rock has been reappointed on the Speakers' Bureau for the coming year, by the Council on Health and Public Instruction of the American Medical Association.

Dr. M. V. Russell of Hope attended the recent meeting of the A. M. A. at Atlantic City. Before returning, Dr. Russell took a post-graduate course in New York and Philadelphia.

Dr. William C. Tipton of Mountain Home has been appointed by the State Board of Charities as physician at the Confederate Sol-

diers Home in Little Rock to relieve Dr. Mason, who has resigned.

Dr. Darmon A. Rhinehart of the Indiana State University has been made Associate Professor of Anatomy of the Medical Department of the University of Arkansas, and will report for duty September 1st.

Drs. A. T. McKinney and W. M. Burns, of Argenta, have formed partnership and have opened new offices in the Pulaski Hotel building, corner Second and Main Streets, Argenta.

Dr. R. H. von Ezdorf of Mobile, Alabama, Director of the United States Public Health Service in the South, with his assistants, Drs. D. M. Molloy and H. A. Taylor, are making a malarial survey of Arkansas.

Dr. A. C. Shipp of Indianapolis, the newly elected Professor of Bacteriology and Pathology of the Medical Department of the University of Arkansas, moved to Little Rock August 3, and began at once to prepare the laboratories for the fall session.

Turn to the roster of the members and officers of the State and County Societies in this issue and see if the names given for your county are correct. If they are not, drop a postal to Dr. C. P. Meriwether, Secretary Arkansas Medical Society, Little Rock.

A State Charity Hospital of the Medical Department of the University of Arkansas, the Medical College, State Board of Health, and other agencies directly related to the Arkansas Medical Society should work in harmony, the ultimate aim being a single one—conservation of the health of the people of Arkansas.

The following Little Rock physicians have moved into the Bankers Trust building, on the southwest corner of Main and Second streets: John G. Watkins, C. S. Pettus, M. E. McCaskill, A. M. Zell, J. R. Wayne, M. D. Ogden, O. K. Judd, A. E. Harris, G. M. Holmes, J. H. Scroggins, C. C. Reid and F. L. Castleberry.

The trustees of the American Medicine Gold Medal Award, announce that the medal for 1914 has been conferred upon George W. Crile, of Cleveland, Ohio, as the American physician who, in their judgment, has performed the most conspicuous and noteworthy service in the domain of medicine and surgery during the past year.

Drs. F. B. Young, William R. Bathurst, Little Rock, and O. L. Williamson, Mari-

anna, have been appointed by the Council on Medical Education of the American Medical Association, as an advisory committee for Arkansas on the standardization of hospitals, particularly as regards the provision by such hospitals for the satisfactory training of internes.

Physicians visiting Little Rock during the past month were: John F. England, England; F. P. Hardy, Carlisle; V. V. Powell, Reader; W. H. L. Woodyard, Judsonia; E. A. Callahan, Hazen; M. D. Kelly, Carthage; James D. Hart, Dardanelle; B. Waltney, Haskell; J. B. Wharton, R. L. Hilton, El Dorado; W. P. Boll, Dermott, and A. E. Bishop, Ashdown.

Dr. John W. Trask, Assistant Surgeon-General United States Public Health Service, has written "A Discussion of Vital Statistics—What They Are and Their Uses." This is published as Supplement No. 12 to the Public Health Reports. Every physician in Arkansas should read this bulletin. A copy may be obtained by addressing the Surgeon-General, United States Public Health Service, Washington, D. C. We strongly advise that you secure one in order that a better understanding of the purposes of vital statistics may be had.

AMERICAN ROENTGEN RAY SOCIETY.

The American Roentgen Ray Society will meet in Cleveland, Ohio, at the Hotel Hollenden, on September 9 to 12, inclusive, 1914. The program promises to be of unusual interest and value, and includes a paper by Des-sauer of Frankfort, on the subject of artificial production of gamma rays; Coolidge, the inventor of the Coolidge tube, Shearer and Duanne will also read papers. The subject of deep therapy and the production of the hard rays will be fully presented and discussed. The remainder of the program will be taken up by a large number of papers on general subjects. The medical profession is cordially invited to attend these meetings.

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF ARKANSAS.

The thirtysixth annual session of the Medical Department of the University of Arkansas will begin Monday, September 14, 1914, and continue until Thursday, May 13, 1915, thus giving over thirty-two weeks of actual instruction.

The school meets the requirements of the Association of American Medical Colleges and the Council on Medical Education of the American Medical Association. Arrangements have been made for additional hospital facilities and for the more thorough utilization of the clinical material. All of the laboratories have been newly and completely equipped.

The Dean has endeavored in every way to improve and elevate the school and place it on the highest basis of efficiency. A corps of salaried instructors has been provided to devote their entire time to teaching. The changes and improvements in all departments will afford thorough instruction.

The matriculation book is now open to prospective students wishing to matriculate early and secure choice of seats.

PULASKI COUNTY NURSES' ASSOCIATION.

At its annual meeting Mrs. Irene H. Aydlett was re-elected president of the Pulaski County Nurses' Association and Mrs. Oscar F. Duebler, registrar.

This association has grown rapidly in numbers and influence and is doing splendid work alike for its members and the public. It now has 86 members who have passed the State Board of Examiners. This means that physicians and patients are assured of a large corps of competent, reliable, trustworthy trained nurses of good character to draw upon whenever needed.

That their services are in demand is in evidence by the record of 492 telephone calls for nurses received and responded to last month. The members of the association are grateful to the physicians of Arkansas and Louisiana for the employment thus secured; but the obligation is mutual as between physician and nurse and patient and nurse.

As stated in their advertisement in this issue of The Journal the official directory of registered nurses is in charge of Mrs. Oscar F. Duebler, R. N., 1115 Barber Avenue, Little Rock, who can be reached by phone 7369, local or long distance.

NEW STATE RULING ON VACCINATION.

Vaccination rules for the country schools have been changed by a recent order of the State Board of Health and now it is not compulsory for children to be vaccinated unless smallpox exists in the community.

The new ruling of the health department, which was issued yesterday, is as follows:

"Whenever it shall appear that smallpox exists in a community or is liable to develop in a community no child shall be permitted to enter or remain in any private or public school in this state except upon the following conditions: First, the presentation of a certificate signed by a competent and reputable physician showing evidence of successful vaccination, or, second, a recent vaccination done in a proper and approved manner by a competent and reputable physician, or, third, a certificate showing immunity from having had smallpox; provided, there is nothing in this regulation to interfere or prevent those school boards now requiring vaccination certificates as entrance qualifications to schools to enforce the same.

"The enforcement of these requirements shall rest upon the teacher or principal in charge."—*Arkansas Democrat*.

FOR SALE—One Wantz X-ray Coil, manufactured by the Victor Electric Company, one Western Coil, 16-inch, manufactured by the Schiedel-Western Electric Company. Both machines suitable for therapeutic and heavy radiographic work. In perfect condition, and at a reasonable price. Address, Dr. A. M. Zell, Urquhart Building, Little Rock, Ark. (Advertisement.)

A TIMELY QUESTION.

What are you going to do with your drug and alcohol habitues? Professional opinion has advanced to the position of regarding these addictions as a disease which is amenable to treatment. Sanitarium care is necessary to the successful handling of such patients, but with the aids afforded by a well-equipped institution, the results of treatment are very satisfactory.

At the Pettey & Wallace Sanitarium, Memphis, Tenn., the most approved methods are employed and the work is carried out under the personal supervision of Dr. Pettey, who originated and published to the profession the now generally accepted method of treatment. When referring patients of this class, don't forget that the man who originated the treatment and who devotes his entire time to it is better equipped to do successful work than one with less experience.

The complete work of Dr. Pettey, a volume of more than 500 pages, can be had of him, or of the publishers, F. A. Davis Co., Philadelphia. (Advertisement.)

Abstracts.

CEREBROSPINAL FLUID.

C. H. Frazier, Philadelphia, in his chairman's address before the Section on Surgery of the American Medical Association (Journal A. M. A., July 25, 1914), takes up the subject of the cerebrospinal fluid as a factor in the problem of intracranial surgery. He points out that it is a very important factor in all cases. Taking first meningitis as an illustration, he shows that there is an increase in the cerebrospinal fluid causing pressure interfering with the blood-supply and the function of the vasomotor and respiratory centers, and this is a determining factor as often perhaps as the specific infection. The treatment of meningitis should, therefore, include some means of controlling the intracranial pressure, as well as the microbial activity. The study of the physiology of the cerebrospinal fluid in relation to the congenital hydrocephalus offers another fruitful field for study. We do not know at present the causes of this condition, and the surgical treatment of it is also so far practically unknown. In brain tumors the cerebrospinal fluid is an absorbing topic. In most cases the increased intracranial tension is the result of the excessive accumulation of the cerebrospinal fluid, and the palliative treatment then becomes a problem dealing with this excessive accumulation. It is only since 1840 that the connection between the subarachnoid spaces and the ventricle has been known. The cerebrospinal fluid has no analogy in the body. It is different on the one hand from lymph, and on the other from the liquid found in serous cavities, and some believe that it has some connection with nutrition of the brain cells. Some believe that it is simply a means of preserving the balance of intracranial pressure, and others again think that it is a mechanism for eliminating carbon dioxide from the central nervous system, and like urea increases the renal flow, so carbon dioxide increases the cerebrospinal secretion. In health the amount of fluid varies from 60 to 100 c.c., and it is very rapidly increased under abnormal conditions, and there is reason for suspecting that it then may be of the nature of a transudation. It fills all the spaces in the cranial cavity not occupied by the nervous and vascular tissues. So far as we know, there are no pathologic conditions where the symptoms are due to its decrease, and by the use of dyes in the subarachnoid spaces we are able to

demonstrate that the lymphatic system has very little to do with its absorption, but that this largely occurs through the venous channels. Frazier believes that the pachionian bodies may have a small part in the absorptive process, and he attributes a good deal in this way to the cerebral sinuses. It is no longer a matter of speculation that the cerebrospinal fluid is the output of the cubical cells of the choroid plexus, and he asks, Should we not consider the choroid plexus a gland subject to various influences like other glandular structures, some known, others yet to be discovered? The suggestion of Stiles that ligation of the common carotid is an effective way of dealing with hydrocephalus implies that the activity of the choroid gland is diminished by limiting its blood-supply as hyperthyroidism is controlled by ligation of its arteries. Unfortunately, this analogy is not supported by clinical or experimental evidence. Frazier relates his experiments in controlling the secretion of the choroid gland with the extracts of other glands, the spleen, kidney, thymus, adrenals, etc. Nearly all of these produced a greater or less fall in blood-pressure, and with this an increased flow in the cerebrospinal fluid. He explains this by the fall of arterial pressure, causing increased pressure in the cerebral sinuses, the dilatation of which forces the cerebrospinal fluid out of the ventricles. He notices Dixon and Halliburton's findings that indicate a specific action of some substance on the secretory function of the choroid gland. In his own experiments, to find some method of retarding this secretion, it was not until he had utilized the thyroid extract that he produced anything like inhibition. "When injected in sufficient quantities, the thyroid extract caused a temporary fall in blood-pressure, with the usual transitory increase in outflow of cerebrospinal fluid; but the significant and altogether unique effect was the prolonged period of decreased outflow which followed, for three or four hours, that is, to the end of the experiment. Even when such small doses as to cause little, if any, change in blood-pressure are injected, the diminution in the rate of choroid secretion is marked, so that we are led to the conclusion that the thyroid gland extract, when injected intravenously, has a specific inhibitory action on the choroid gland." He will continue these studies. In conclusion, he says, the cerebrospinal fluid is of absorbing interest to the clinician in the diagnosis of many intracranial diseases and

in measures for their relief. Of equal interest, however, are the problems of research to reveal the secrets of its function.

Propaganda for Reform.

SCOPOLAMIN-MORPHIN ANESTHESIA.—McClure's Magazine for June contains a sensational account of the use of scopolamin-morphin in anesthesia as used by Kronig and Gauss at Freiburg. In America the scopolamin-morphin anesthesia has received little attention. It is far from safe and can be carried out only in hospitals. Morphin and scopolamin should not be used in fixed proportions. (Journal A. M. A., June 6, 1914, pp. 1815 and 1829.)

GLYCO-HEROIN, Smith.—A report of the Council on Pharmacy and Chemistry explains that Glyco-Heroin, Smith, although containing 1-16 grain heroin to the teaspoonful, is exploited in a way to encourage self-drugging by the layman. The advertising matter suggests the administration of Glyco-Heroin, Smith, to children and much of it has contained the evident falsehood that this heroin mixture does not produce narcotism or habituation. The possibility of habit formation should be sufficient to induce the thoughtful physician to avoid the use of Glyco-Heroin, Smith. (Journal A. M. A., June 6, 1914, p. 1826.)

CYSTOGEN.—At a meeting of physicians recently the question was asked: "Why is cystogen, which is just plain hexamethylenamin, not recognized by the Council on Pharmacy and Chemistry?" The answer is simple: Because the therapeutically suggestive title as well as the method of exploitation encourage its indiscriminate and ill-advised use, both by the medical profession and the public. (Journal Mo. State Med. Assn., June, 1914, p. 473.)

BUFFALO LITHIA WATER.—The fallacy that diseases are due to uric acid and the fallacy that lithium would eliminate the uric acid has made mineral waters highly profitable—even when lithium was present only in infinitesimal amounts. One of the most widely used "lithia waters" was Buffalo Lithia Water, later called Buffalo Lithia Springs Water, which has been declared misbranded by the federal courts because it was shown to contain less lithia than does Potomac River water, and that a person would have to drink

150,000 to 225,000 gallons of the water to obtain an ordinary dose of lithia. The testimonials certifying to the high efficiency of Buffalo Lithia Water and its superiority to lithium compounds given in the past by physicians eminent in their profession certify to the unreliability of clinical observations. (Journal A. M. A., June 13, 1914, p. 1909.)

THE ABSORPTION OF IRON.—The belief that organic compounds of iron were superior to inorganic salts arose before it was known that the bowel forms the most important channel for the excretion of this element, whence the failure to find an increase in the amount of iron eliminated with the urine by means of the kidneys after ingestion of the element in some form or other was taken as an indication that it had not been absorbed. Today it is known that iron can be absorbed and excreted by the intestinal wall. Experiments have demonstrated that both inorganic and organic iron can be absorbed and satisfactorily carry out the purposes for which iron is administered. (Journal A. M. A., June 13, 1914, p. 1913.)

PROPHYLAXIS OF TETANUS.—The following procedure is advised: Remove every particle of foreign matter from the wound. Dry the wound and treat every part with iodine or cauterize it with a 25 per cent phenol solution and apply a wet pack saturated with boric acid solution or alcohol. Inject as soon as possible, intravenously or subcutaneously, 1,500 units of antitetanic serum and repeat the injections if indications of possible tetanus arise. In no case close the wound, but allow it to heal by granulation. (Journal A. M. A., June 20, 1914, pp. 1964 and 1971.)

BEEF, WINE AND COCA.—This preparation, sold by Sutliff, Case & Co., Peoria, Ill., was claimed to contain about 15 per cent alcohol and one-fifth of a grain of cocaine to the fluid ounce. It was found to contain 23.75 per cent of alcohol by the federal authorities and accordingly declared misbranded by the courts. (Journal A. M. A., June 20, 1914, p. 1981.)

MALT NUTRINE.—This product of the Anheuser-Busch Brewing Association was declared misbranded by the government authorities because the label claimed that it was a highly concentrated extract of malt, which was untrue. Malt Nutriline was found to contain 1.6 per cent alcohol and extravagant therapeutic

claims were made for it. (Journal A. M. A., June 20, 1914, p. 1981.)

MANADNOCK LITHIA WATER.—While extravagant curative claims were made for this "lithia water," examination showed it to contain only traces of lithia, and hence it was declared misbranded under the food and drugs act. (Journal A. M. A., June 30, 1914, p. 1981.)

BUCKHORN LITHIA WATER.—This water was declared misbranded by the federal authorities because false curative claims were made for it and because it did not contain enough lithia to be entitled to its name. (Journal A. M. A., June 20, 1914, p. 1981.)

SUN-RAY SPARKING WATER.—While represented to be "the world's purest water," it was water to which sodium chloride, sodium bicarbonate and carbon dioxide had been added. Accordingly the company which sold the water was found guilty of misbranding under the food and drugs act. (Journal A. M. A., June 20, 1914, p. 1981.)

HICCURA MINERAL WATER.—This was declared misbranded because it was not a natural mineral water as claimed. (Journal A. M. A., June 20, 1914, p. 1981.)

RAYMOND'S PECTORAL PLASTERS.—These are exploited untruthfully as "positive cures" for whooping cough, bronchitis, etc. (Journal A. M. A., June 20, 1914, p. 1982.)

County Societies.

MISSISSIPPI COUNTY.

(Reported by E. E. Craig, Secretary.)

The Mississippi County Medical Society met June 12, at Blytheville. Members present: A. E. Turrentine, John F. Sanders, Blytheville; Earl E. Craig, Wilson; T. F. Hudson, Luxora; R. P. Nall, Armored; T. F. Taylor, Oseeola; Dr. McCreight, Luxora, and Dr. Ussey, Blytheville.

The scientific session was as follows:

"The Possibility of a Complete Eradication of Malaria," Dr. T. F. Taylor. He reviewed the subject of preventable medicine, and in considering the practical features for preventing malaria, he said that the campaign should be taken up by the county medical societies; that a prophylactic dose of five or seven grains of sulphate of quinin should be given daily, increasing or decreasing the dose according to the malarial indices of the locality. He is of the opinion that the best time

of the day for the administration of quinin is in the evening, just before retiring for the night.

Dr. Taylor said that for this latitude all persons known to have been infected the previous year with malaria should begin prophylactic treatment the first of April and continue till the first of November.

His paper closed with the following conclusions:

1. It is an established fact that quinin is a specific curative agent for malaria, and when properly used is a thorough and complete prophylactic.

2. That the malaria bearing mosquito is the only agency of transmission and should be exterminated as completely as economic conditions will allow. It is harmless if kept out of contact with persons infected with the malarial parasites.

3. That a general campaign should be inaugurated by every county medical society to instruct the laity as to the course they must pursue to effectually and completely wipe out this scourge.

The reading of this paper was followed by a very interesting general discussion.

Our next meeting, August 11, will be held in the Masonic Temple at Wilson.

LAWRENCE COUNTY.

(Reported by H. R. McCarroll, Secretary.)

The Lawrence County Medical Society met August 5, with Dr. J. H. Stidman, Hoxie. Members present: J. C. Hughes, J. W. Morris, H. R. McCarroll, E. T. Ponder, W. A. Smith, J. H. Stidman, Earle Thomas, C. C. Townsend, and G. Max Watkins.

The scientific program was as follows:

"Dietetics in Breast and Bottle-fed Babies in the First Year of Life," by J. H. Stidman.

"Treatment of Ileocolitis," by A. G. Henderson.

"Information Ascertained from the Examination of the Urine in Diseases of Childhood," by E. T. Ponder.

"Therapy in Parturition," by J. M. Stephens.

The salient points in a paper on Malaria by Dr. C. C. Bass, of New Orleans, were discussed.

All of the papers were profitably discussed and it is certain the physicians present are better prepared than ever before to care for their patients.

Dr. Stidman served refreshments and the meeting adjourned at a late hour.

Deaths.

GALLIGHER—In Pine Bluff, on Saturday, June 27, Dr. Barnard H. Galligher, aged 51 years.

FEATHERS—In Farmington, on Monday, July 13, Dr. Charles Feathers, aged thirty-two years.

Book Reviews.

DISEASES OF THE SKIN.—A compend by Jay F. Schamberg, A. B., M. D., professor of diseases of the skin, Philadelphia Polytechnic Hospital; member of the American Dermatological Association, etc. Fifth edition, revised and enlarged, with 122 illustrations. Published by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia, Pa. Price, \$1.00.

This little book is a rapid reference work and key to the study of Dermatology. It is a new edition and has been generally revised, containing all the latest views on syphilis, vaccine treatment, and the use of carbon dioxid.

E. MERCK'S REPORT OF RECENT ADVANCES IN PHARMACEUTICAL CHEMISTRY AND THERAPEUTICS, 1912. Volume XXVL. E. Merck Chemical Works, Darmstadt, 1913.

The opening article of this volume is on Lecithin, bringing up to date the knowledge of this remedy. Prof. Heinz, of the University of Erlangen, contributes a valuable paper on "The Standardization of Digitalis Preparations."

While this book is published primarily for distribution to teachers of materia medica and medical libraries, some copies always remain which are sent to interested physicians who care to pay 15 cents for mailing charges. No charge is made for the book.

STATE BOARD QUESTIONS AND ANSWERS.—By R. Max Goepp, M. D., professor of clinical medicine at the Philadelphia Polyclinic. Third edition, thoroughly revised. Octavo volume of 717 pages. Philadelphia. W. B. Saunders Company, 1913. Cloth, \$4.00 net; half morocco, \$5.50 net.

The purpose of this book is to provide a convenient compend for the use of those who wish to prepare themselves for State Board examinations. It is an excellent compilation and will prove a very valuable aid to those who feel the need of a condensed lesson help. For didactic expositions the student should consult the larger textbooks.

MEDICAL GYNECOLOGY.—By S. Wyllis Bandler, M. D., adjunct professor of diseases of women, New York Post-Graduate Medical School and Hospital. Third thoroughly revised edition. Octavo of 790 pages, with 150 original illustrations. Philadelphia. W. B. Saunders Company, 1914. Cloth, \$5.00 net; half morocco, \$6.50 net.

This book represents, with elaborations, a grouping and rearrangement of the author's clinical lectures on the nonoperative side of gynecology. Operative procedures have been viewed as a last resort in those numerous conditions where medical means can accomplish so much.

Dr. Bandler's book shows the relation of normal and pathologic genital functions to the general physical and psychic health of women.

THE PRACTICE OF PEDIATRICS.—By Charles Gilmore Kerley, M. D., professor of diseases of children, New York Polyclinic Medical School and Hospital. Octavo of 878 pages, 139 illustrations. Philadelphia. W. B. Saunders Company, 1914. Cloth, \$6.00 net; half morocco, \$7.50 net.

The name of the author of this book is sufficient assurance of its value. It is all that one could expect in a single volume on pediatrics. All of the ailments of the new-born and early childhood days are considered. Separate chapters on "Suggestions in Management," "Therapeutic Measures," "Gymnastic Therapeutics," and "Drugs and Drug Dosage."

ELECTRICITY IN DISEASES OF THE EYE, EAR, NOSE AND THROAT.—By W. Franklin Coleman, M. D., M. R. C. S. Eng., 15 East Washington Street, Chicago, Ill. 595 pages and 156 illustrations. Price, \$5.00.

In this book the author presents the latest and best thought of electro-therapeutists, on the application of electricity in diseases of the eye, ear, nose and throat. He has incorporated the results of his own investigations and practice and also gathered into one compact whole the testimony of coworkers in this field.

Part I describes "Physics of Electricity." In this chapter the author gives such elementary physics as are essential for the intelligent use of electricity, and couched in language that is intelligible to all.

Part II describes "The Therapeutic Use of Electricity and the Technic of Its Application."

Parts III, IV, V and VI treat of "Electricity in Diseases of the Eye, Ear, Nose, and Throat," with the history of cases and the results achieved by this treatment.

THE PATHOGENESIS OF SALVARSAN FATALITIES.—By Dr. Wilhelm Wechselmann, directing physician of the Dermatological Department, Rudolph Virchow Hospital in Berlin, Germany. Authorized translation by Clarence Martin, M. D., member of Berlin Urological Society, etc. St. Louis, Mo. Published by the Fleming-Smith Company, medical publishers, St. Louis, Mo. Price, \$1.50, postpaid.

We believe that our readers who are interested in the treatment of syphilis by means of salvarsan and neosalvarsan will find much food for thought in a perusal of its pages.

Along with other valuable advice in order to impress upon those using salvarsan, he mentions the following precautions:

1. The most exact technic.
2. A dose of the drug carefully adapted to the individual case.
3. Careful observation of the urinary secretion when employing salvarsan; resorting to the most exact chemical and microscopical examination of the urine. This holds good particularly when the combined treatment is employed.
4. The conjoint use of salvarsan with heavy mercurial treatment is dangerous. If one will use the combined treatment, then give mercury carefully many days after the last salvarsan injection; but never reverse this rule.
5. Take into careful consideration every general consideration, every general reaction or rise of temperature, following the use of salvarsan, and make full investigation of the causes of such effect.

MODERN SURGERY, GENERAL AND OPERATIVE.—By J. Chalmers DaCosta, M. D., Samuel D. Gross Professor of Surgery, Jefferson Medical College, Philadelphia, Pa. Seventh edition, revised, enlarged and reset. Octavo of 1,515 pages, with 1,085 illustrations, some of them in colors. Philadelphia. W. B. Saunders Company, 1914. Cloth, \$6.00 net; half morocco, \$7.50 net.

True to its name, this new edition is indeed "Modern Surgery." The book has been entirely reset from cover to cover. The pages are seven lines larger and slightly wider to permit the additional new matter without greatly increasing the number of pages. In a charming and lucid manner Dr. DaCosta describes Bacteriology; Asepsis and Antisepsis; Inflammation; Repair; Surgical Fevers; Suppuration and Abscess; Ulceration and Fistula; Gangrene; Thrombosis; Septicemia; Erysipelas; Tetanus; Tuberculosis; Rachitis; Contusions; Burns; Syphilis and Tumors.

Following this we find chapters on Diseases and Injuries of the Heart and Vessels; Diseases and Injuries of Bones and Joints; Dis-

eases and Injuries of Muscles, Tendons and Bursae; Orthopedic Surgery; Diseases and Injuries of Nerves; Diseases and Injuries of the Head; Surgery of the Spine; Surgery of the Respiratory Organs; Diseases and Injuries of the Upper Digestive Tract; Diseases and Injuries of the Abdomen, Rectum and Anus; Anesthesia and Anesthetics; Diseases of the Skin and Nails; Diseases and Injuries of the Thyroid Gland; The Carotid; The Thymus Gland; Diseases and Injuries of the Lymphatics; Bandages; Plastic Surgery; Diseases and Injuries of the Genito-Urinary Organs; Amputations; Diseases of the Mammary Gland; Skiagraphy; The Finsen Light; Becquerel's Ray; Radium Rays; and Injuries by Electricity.

A TREATISE ON DISEASES OF THE SKIN.—For the use of advanced students and practitioners. By Henry W. Stelwagon, M. D., professor of dermatology, Jefferson Medical College, Philadelphia. Seventh edition, thoroughly revised. Octavo of 1,250 pages, with 334 text-illustrations and 33 full-page colored and half-tone plates. Philadelphia. W. B. Saunders Company, 1914. Cloth, \$6.00 net; half morocco, \$7.50 net.

This book is one of the best if not the best published on the subject of dermatology.

Descriptions of new or more or less recently acknowledged independent disorders are presented for the first time, among which may be mentioned prurigo nodularis, granuloma pyogenicum, benign sarcoid and keratosis blenorragica.

Many other subjects have been revised and rewritten and the number of illustrations has been increased—all of which has greatly enhanced its value as an up-to-date work on this fascinating specialty.

A MIND REMEDY.—By John G. Ryerson, M. D., Boonton, N. J.

This little booklet refers to ailments that have four characteristics.

1. Medication, climate, and hygiene have little effect. They are practically incurable.
2. They have no alteration in structure. It may be claimed they have no pathology.
3. Their symptoms are of nervous character.
4. They have no microbe peculiar to each disease.

With many ailments the author says, that the idea has been advanced that all symptoms originated in the brain and all local symptoms were secondary. As to treatment he claims that lactose, or sugar of milk, is practically a specific. A list of diseases and report of cases closes the book.

THE DIAGNOSIS AND TREATMENT OF DIGESTIVE DISEASES.—A practical treatise for students and practitioners of medicine. By George M. Niles, M. D., professor of gastro-enterology and clinical medicine, Atlanta Medical College, Atlanta, Ga. 597 pages, with one colored plate and 86 other illustrations. Published by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia, Pa. Price, \$5.00.

In reviewing this book we find descriptions of the various reliable tests for the objects of study in the gastric contents, intestinal juices, and feces; practicable methods of determining the position, size, motility, etc., of the stomach, intestines and other abdominal viscera; a succinct statement of the diagnostic methods indicated in the recognition of digestive diseases; and a discussion of both general and specific therapy as applied to these diseases.

At the close a chapter on constipation and one on intestinal parasites are given.

THE LOCAL PREPARATION OF PATIENTS FOR OPERATION.

A. D. Whiting, Philadelphia (Journal A. M. A., August 8, 1914), says that to enter the realm of the aseptic ideal the field of operation must be free from germ life and must remain so during the operative procedure. Various methods advocated by writers as ideal, in the hands of others have given different results. In order to prove a method ideal, tests must be made from fifteen to thirty minutes after sterilization to prove that bacteria have not been thrown to the surface of the skin from the deeper layers of the epidermis. The two methods of sterilization are the wet and the dry. The object of the first—scrubbing with hot water, soap, etc., is to remove all contaminating material. The second attempts to destroy all germs on or in the skin and to lock up in its crevices all micro-organisms not destroyed. A third method combines the two. Whitney gives Grossich's method of iodine sterilization in which the skin is shaved dry and is painted with a 10 or 12 per cent solution of iodine in alcohol. The skin must be dry, as iodine applied to a wet skin tends to cause blistering and suppuration. Solutions in 70 per cent alcohol are better germicides than those made with 95 per cent. Potassium iodide added enhances the germicidal value. The official tincture of iodine is increased in germicidal power by diluting with one part water to four parts tincture. Iodine in benzene 1-1,000 as a preliminary wash for the skin, followed by the application of a 3 per cent solution of iodine in alcohol, is lauded by some surgeons. In the dry method the field of operation is

shaved dry and painted with alcoholic solution of iodine or rubbed with 1-1,000 solution of mercuric chloride in 70 per cent alcohol. To aid in killing the germs and contracting the superficial cells of the skin to prevent exit of other germs the skin may be covered with adhesive rubber dam (Murphy's method), or painted with a special varnish as advised by McDonald. A combination of the methods consists in the use of the wet from ten to twelve hours before operation and application of the dry eight to ten hours later with a second application after patient is on the operating table. Whiting, in various tests, found the only perfect results were secured in applications after a sweating process during which the skin washed itself clean from germ life.

POISONING BY MALE-FERN.

An unusual case of fatal poisoning by the administration of male-fern as a vermifuge is reported by M. C. Hall, Washington, D. C. (Journal A. M. A., July 18, 1914). The patient was a young man who suffered from constant hunger and feverishness at night and was prescribed for by a so-called "Quaker doctor," or Indian doctor of Joplin, Mo. He died in convulsions and with tetanic symptoms, after taking a large quantity of what seems to have been extract of male-fern. The striking features of the case are, first, that there was no evidence that the patient had tape-worm, and secondly, that a doctor should send a poison as strong as oleoresin of male-fern in excess of the usual dose to be given to a person in another state and followed up by castor oil, which increases the absorbability and toxicity of the drug. There was always the possibility that consulting by letter an advertising "Indian or Quaker doctor" may cause a patient's death.

VESICO- AND RECTOVAGINAL FISTULA.

Dr. H. O. Marey, Boston (Journal A. M. A., July 18, 1914), reviews the surgical history of vesicovaginal and rectovaginal fistula. His article is, he says, largely a recapitulation of surgical studies which have been published from time to time and he calls attention again to his introduction of the buried animal suture. He says he considers that the primal factors to be accepted as fundamental in importance in his operations are the making and maintaining of an aseptic wound held in easy retention and rest by buried absorbable sutures.

OFFICERS OF THE AMERICAN MEDICAL ASSOCIATION, 1914-1915.

Next Annual Session, San Francisco, June 21-25, 1915.

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Council on Health and Public Instruction—W. C. Woodward, Washington, D. C., 1915; H. B. Favill, Chairman, Chicago, 1916; Walter B. Cannon, Boston, 1917; W. S. Rankin, Raleigh, N. C., 1918; H. M. Bracken, Minneapolis, 1919; Frederick R. Green, Secretary, 535 N. Dearborn Street, Chicago.

Council on Medical Education—George Dock, St. Louis, 1915; W. D. Haggard, Nashville, Tenn., 1916; James W. Holland, Philadelphia, 1917; H. D. Arnold, Boston, 1918; Arthur D. Bevan, Chicago, 1919; N. P. Colwell, Secretary, 535 N. Dearborn Street, Chicago.

Council on Pharmacy and Chemistry—F. G. Novy, Ann Arbor, Mich., 1915; George H. Simmons, Chairman, Chicago, 1915; New Haven, Conn., 1916; Torald Sollmann, Cleveland, Ohio, 1916; W. I. Wilbert, Washington, D. C., 1916; Reid Hunt, Boston, Mass., 1917; J. H. Long, Chicago, 1917; Julius Stieglitz, Chicago, 1917; J. A. Capps, Chicago, 1918; David L. Edsall, Boston, 1918; R. A. Hatcher, New York City, 1918; H. W. Wiley, Washington, D. C., 1915; O. T. Osborne, John Howland, Baltimore, 1919; Henry Kramer, Philadelphia, 1919; C. L. Alsberg, Washington, D. C., 1919; W. A. Puckner, Secretary, 535 N. Dearborn Street, Chicago.

OFFICERS OF SECTIONS, 1914-1915.

Practice of Medicine—Chairman, Thomas McCrae, Philadelphia; Vice Chairman, John L. Dawson, Charleston, S. C.; Secretary, Roger S. Morris, Clifton Springs, N. Y.

Surgery, General and Abdominal—Chairman, Charles H. Peck, New York; Vice Chairman, Wallace I. Terry, New York; Secretary, E. S. Judd, Rochester, Minn.

Obstetrics, Gynecology and Abdominal Surgery—Chairman, Thomas S. Cullen, Baltimore, Md.; Vice Chairman, George B. Somers, San Francisco; Secretary, Brooke M. Anspach, 119 S. Twentieth Street, Philadelphia.

Ophthalmology—Chairman, E. C. Ellett, Memphis; Vice Chairman, John A. Donovan, Butte, Mont.; Secretary, George S. Derby, 7 Hereford Street, Boston.

Laryngology, Otology and Rhinology—Chairman, Norval H. Pierce, Chicago; Vice Chairman, Ross H. Skillern, Philadelphia; Secretary, Francis P. Emerson, 520 Commonwealth Avenue, Boston.

Diseases of Children—Chairman, Lawrence T. Royster, Norfolk, Va.; Vice Chairman, Albert W. Myers, Milwaukee, Wis.; Secretary, F. P. Gengenbach, 1434 Glenarm Street, Denver.

Pharmacology and Therapeutics—Chairman, R. A. Hatcher, New York; Vice Chairman, J. R. Arneill, Denver; Secretary, W. I. Wilbert, Twenty-fifth and E Streets, N. W., Washington, D. C.

Pathology and Physiology—Chairman, A. J. Carlson, Chicago; Vice Chairman, L. B. Wilson, Rochester, Minn.; Secretary, F. P. Gay, University of California, Berkeley, Cal.

Stomatology—Chairman, F. B. Moorehead, Chicago; Vice Chairman, Arthur D. Black, Chicago; Secretary, Eugene S. Talbot, 31 N. State Street, Chicago.

Nervous and Mental Diseases—Chairman, F. X. Dercum, Philadelphia; Vice Chairman, H. G. Brainerd, Los Angeles; Secretary, G. A. Moleen, Mack Building, Denver.

Dermatology—Chairman, Howard Fox, New York; Vice Chairman, A. Ravogli, Cincinnati; Secretary, H. H. Hazen, The Rochambeau, Washington, D. C.

Preventive Medicine and Public Health—Chairman, C. Hampson Jones, Baltimore; Vice Chairman, Eugene R. Kelley, Seattle; Secretary, O. P. Geier, Ortiz Building, Cincinnati.

Genito-Urinary Diseases—Chairman, Granville MacGowen, Los Angeles; Vice Chairman, Edward Martin, Philadelphia; Secretary, Louis E. Schmidt, 5 S. Wabash Avenue, Chicago.

Hospitals—Chairman, Minford H. Smith, Baltimore; Secretary, John A. Hornsby, Tower Building, Chicago.

Orthopedic Surgery—Chairman, Nathaniel Allison, St. Louis; Vice Chairman, Russell A. Hibbs, New York; Secretary, Emil S. Geist, 614 Syndicate Building, Minneapolis.

OFFICERS OF THE ARKANSAS MEDICAL SOCIETY, 1914-1915.

Next Annual Session, Little Rock, May, 1915.

President—St. Cloud Cooper, Fort Smith.
First Vice President—G. A. Warren, Black Rock.
Second Vice President—R. L. Hilton, El Dorado.
Third Vice President—R. S. Rice, Rogers.
Treasurer—William R. Bathurst, Little Rock.
Secretary—C. P. Meriwether, Little Rock.
Committee on Scientific Program—William R. Bathurst, Chairman, Little Rock; Robert Caldwell, Little Rock; C. P. Meriwether, Little Rock (ex officio).
Committee on Legislation—Frank B. Young, Chairman, Little Rock; C. W. Garrison, Little Rock; W. F. Smith, Little Rock; Horace E. Ruff, Heber Springs; John W. Meek, Camden; St. Cloud Cooper, Fort Smith (ex officio); C. P. Meriwether, Little Rock (ex officio).
Committee, Board of Visitors to the Medical Department, University of Arkansas—R. C. Dorr, Chairman, Batesville; L. J. Kominsky, Texarkana; R. A. Hilton, El Dorado.

Committee on Necrology—H. H. Neihuss, Chairman, El Dorado; J. T. Clegg, Siloam Springs; R. H. T. Mann, Texarkana.

Committee on Trained Nurses—W. A. Snodgrass, Chairman, Little Rock; Leonard R. Ellis, Hot Springs; Earle H. Hunt, Clarksville.

Committee on Health and Public Instruction—T. B. Bradford, Chairman, Cotton Plant; M. S. Dibrell, Van Buren; J. H. Southard, Fort Smith.

Committee on Sanitation and Public Hygiene—Leonadus Kirby, Chairman, Harrison; Edwin F. Ellis, Fayetteville; Thomas Douglass, Ozark.

Committee on Memorial Tablet in Memory of Dr. John S. Shibley—L. P. Gibson, Chairman, Little Rock; J. B. Eberle, Fort Smith; A. E. Hardin, Fort Smith; Frank Vinsonhaler, Little Rock; M. D. Ogden, Little Rock.

COUNCILOR DISTRICTS AND COUNCILORS, 1914-1915.

First Councilor District—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph counties. Councilor, M. C. Hughey, Rector. Term of office expires 1915.

Second Councilor District—Cleburne, Fulton, Independence, Izard, Jackson, Sharp and White counties. Councilor, L. T. Evans, Barren Fork. Term of office expires 1916.

Third Councilor District—Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis and Woodruff counties. Councilor, T. B. Bradford, Cotton Plant. Term of office expires 1915.

Fourth Councilor District—Ashley, Bradley, Chicot, Cleveland, Desha, Drew, Jefferson and Lincoln counties. Councilor, E. C. McMullen, Pine Bluff. Term of office expires 1916.

Fifth Councilor District—Calloun, Columbia, Dallas, Lafayette, Ouachita and Union counties. Councilor, J. S. Rinehart, Camden. Term of office expires 1915.

Sixth Councilor District—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier counties. Councilor, C. A. Areher, DeQueen. Term of office expires 1916.

Seventh Councilor District—Clark, Garland, Hot Spring, Montgomery, Saline, Scott and Grant counties. Councilor, J. F. Rowland, Hot Springs. Term of office expires 1915.

Eighth Councilor District—Conway, Johnson, Faulkner, Perry, Pulaski, Yell and Pope counties. Councilor, W. A. Snodgrass, Chairman, Little Rock. Term of office expires 1916.

Ninth Councilor District—Baxter, Boone, Carroll, Marion, Newton, Searey, Stone and Van Buren counties. Councilor, A. M. Hatcock, Harrison. Term of office expires 1915.

Tenth Councilor District—Benton, Crawford, Franklin, Logan, Sebastian, Madison and Washington counties. Councilor, J. T. Clegg, Siloam Springs. Term of office expires 1916.

Delegates to American Medical Association—Robert Caldwell, Little Rock; W. V. Laws, Hot Springs. Alternate—J. T. Clegg, Siloam Springs.

MEDICAL BOARDS.

MEMBERS OF THE STATE MEDICAL BOARD OF THE ARKANSAS MEDICAL SOCIETY.	MEMBERS OF THE ARKANSAS STATE BOARD OF HEALTH.
M. Fink, Helena. T. J. Stout, Brinkley. E. F. Ellis, Fayetteville. F. T. Isbell, Horatio. G. S. Brown, Conway. W. S. Stewart, Pine Bluff. J. C. Wallis, Arkadelphia.	S. A. Southall, President, Loucou. B. A. Fletcher, McLendon. G. A. Warren, Black Rock. W. P. Parks, Mena. L. A. Buckner, Dermott. J. T. Clegg, Siloam Springs. W. F. Smith, Little Rock. F. B. Young, Health Officer, Little Rock. C. W. Garrison, Assistant Health Officer, Little Rock.

PRESIDENTS AND SECRETARIES OF COUNTY MEDICAL SOCIETIES.

County	President	Address	Secretary	Address.
Arkansas.....	Moorhead, W. H.	Stuttgart	Johu, M. C.	Stuttgart
Ashley.....	Scott, E. M.	Hamburg	Williams, R. G.	Parkdale
Baxter.....	Tipton, W. C.	Mountain Home	Morrow, J. J.	Cotter
Benton.....	Powell, J. T.	Maysville	Henry, R. T.	Bentonville
Boone.....	Johnson, J. J.	Harrison	Kirby, F. B.	Harrison
Bradley.....			Green, B. H.	Warren
Calhoun.....			Black, C. T.	Thoruton
Carroll.....	Ezell, N. D.	Eureka Springs	Huntington, R. H.	Eureka Springs
Chicot.....	Norton, M. M.	Lake Village	McGehee, E. P.	Lake Village
Columbia.....	Doane, S. M.	Arkadelphia	Rowland, W. T.	Arkadelphia
Clay.....	Waddle, M. V. D.	Success	Latimer, N. J.	Corning
Cleveland.....	Hartsell, W. L.	Warren	Wilson, H. O.	Randall
Columbia.....	Stevenson, W. A.	Magnolia	Stevens, C. D.	Magnolia
Conway.....	Clark, C. D.	Morrilton	Presley, W. L.	Morrilton
Craighead.....	Ellis, John W.	Jonesboro	Willett, R. H.	Jonesboro
Crawford.....	Dibrell, M. S.	Van Buren	Bourland, O. M.	Van Buren
Crittenden.....	Hicks, W. P.	Earle	Parker, A. C.	Clarksdale
Cross.....	Griffin, J. L.	Vandale	Longest, R.	Wynne
Dallas.....	Atkinson, H. H.	Fordyce	March, C. J.	Fordyce
Desha.....	White, R. F.	McGehee	Smith, H. T.	McGehee
Drew.....	Cothan, E. R.	Monticello	Brown, W. A.	Monticello
Faulkner.....	Blakeley, G. W.	Conway	Westerfield, J. S.	Conway
Franklin.....	Blakely, T. B.	Coal Hill	Douglass, Thomas.	Ozark
Garland—Hot Springs...	Ellis, L. R.	Hot Springs	Mount, M. F.	Hot Springs
Grant.....	Butler, J. L.	Sheridan	Kelly, O. R.	Sheridan
Greene.....	Baker, E. S.	Paragould	Chapman, T. J.	Paragould
Hempstead.....	Saner, W. F.	Hope	Gillespie, L. J.	Hope
Hot Spring.....	Williams, J. M.	Malvern	Hardy, H.	Malvern
Howard.....			Hale, A. Wilson	Nashville
Independence.....	Hayden, J.	Bethesda	Craig, M. S.	Batesville
Jackson.....	Erwin, Ira H.	Newport	Walker, H. O.	Newport
Jefferson.....	Woodul, T. W.	Pine Bluff	Palmer, J. T.	Pine Bluff
Johnson.....	Bradley, J. F.	Lamar	Hays, Annie	Clarksville
Lafayette.....	Bright, D. W.	Lewisville	Youmans, F. W.	Lewisville
Lawrence.....	Watkins, Max	Walnut Ridge	McCarroll, H. R.	Walnut Ridge
Lec.....	Chafin, C. W.	Moro	Ingram, T. H.	Marianna
Lincoln.....	Watts, J. D.	Tyro	Raines, Thomas W.	Star City
Little River.....	Shackleford, T. T.	Foreman	Vaughan, W. E.	Richmond
Logan.....	Bennett, W. H.	Paris	Henderick, A. R.	Booneville
Lonoke.....	Chinault, John C.	England	England, John F.	England
Madison.....	Youngblood, Fred	Huntsville	Berry, F. O.	Hindsville
Miller.....	Grant, R. L.	Texarkana	Lanier, L. H.	Texarkana
Mississippi.....	Hudson, T. F.	Luxora	Craig, Earl E.	Wilson
Monroe.....	McKnight, E. D.	Brinkley	Johnson, P. E.	Holly Grove
Montgomery.....	Freeman, W. D.	Mount Ida	Kennedy, L. S.	Mount Ida
Nevada.....	Rice, W. W.	Prescott	Buchanan, A. S.	Prescott
Ouachita.....	Meeck, J. W.	Camden	Early, C. S.	Camden
Perry.....	Moncrief, J. J.	Bigelow	Jones, R. A.	Houston
Phillips.....	Russwurm, W. C.	Helena	Orr, W. R.	Helena
Pulaski.....	Harris, A. E.	Little Rock	McCurry, W. T.	Little Rock
Pike.....	Thomasson, J. B.	Bills	Stokes, B. S.	Delight
Polk.....	Dunman, G. P.	Mena	Bizzell, M. A.	Mena
Poinsett.....	Yarbrough, R. E.	Harrisburg	Davis, J. S. C.	Harrisburg
Pope.....			Britt, J. B.	Russellville
Prairie.....	Gilliam, J. C.	Des Arc	Parker, James	Devall's Bluff
Randolph.....	Brown, John	Pocahontas	Hamil, W. E.	Pocahontas
Saline.....	Crawford, J. B.	Benton	Melton, J. W.	Slocomb
Searcy.....	Robertson, L. D.	Leslie	Melton, A. S.	Snowball
Sebastian.....	Holt, C. S.	Fort Smith	Dorente, Fred R.	Fort Smith
Sevier.....	Hammonds, O. O.	DeQueen	Norwood, M. L.	Lockesburg
St. Francis.....	Reynolds, J. C.	Colt	Pelton, D. A.	Forrest City
Union.....	McGraw, S. J.	El Dorado	Niehuss, H. H.	El Dorado
Washington.....	Moore, A. I.	Fayetteville	Towler, H. H.	Fayetteville
White.....			Jones, J. L.	Searcy
Woodruff.....	Mathis, W. J.	Cotton Plant	Dungan, C. E.	Augusta
Yell.....	Brewer, W. R.	Ola	Linzy, J. R.	Dardanelle

MEMBERS OF COMPONENT SOCIETIES.

Arkansas County.			Ashley County.		
Boswell, W. H.	Almyra	Morphew, L. H.	Stuttgart	Crandall, M. C.	Wilmot
Buntt, A. D.	Humphrey	Park, C. E.	DeWitt	George, B. F.	Hamburg
Derrick, H. C.	DeWitt	Rasco, C. W.	DeWitt	Hawkins, M. C.	Parkdale
Fowler, Arthur	Humphrey	Rives, C. T.	Almyra	Norman, W. S.	Hamburg
Hill, B. L.	Stuttgart	Sillin, C. W.	Stuttgart	Parker, J. L.	Snyder
John, M. C.	Stuttgart	Swindler, E. B.	Stuttgart	Scott, E. M.	Hamburg
Lowe, A. M.	Gillett	Winkler, E. H.	DeWitt	Setzler, G. H.	Crossett
Lowe, W. W.	Gillett			Shipman, W. H.	Montrose
Lumsden, C. A.	DeWitt			Simpson, J. W.	Hamburg
Moorhead, W. H.	Stuttgart			Sparks, J. E.	Crossett
				Taylor, I. S.	Morrell

Wilks, E. H. Crossett
Williams, R. G. Parkdale
Wood, J. T. Fountain Hill

Baxter County.

Cannady, C. T. Cotter
Hipp, J. A. Buford
Morrow, J. J. Cotter
Mooney, L. M. Mountain Home
Tipton, W. C. Mountain Home
Tipton, J. T. Mountain Home

Benton County.

Beard, J. H. Siloam Springs
Buffington, G. H. Decatur
Cargile, Charles H. Bentonville
Clegg, J. T. Siloam Springs
Clemmer, J. L. Springtown
Duckworth, F. M. Siloam Springs
Epperson, F. R. Gentry
Eubanks, F. G. Decatur
Fergus, J. A. Rogers
Green, L. O. Pea Ridge
Harrison, A. J. Lowell
Henry, R. T. Bentonville
Henry, J. T. Bentonville
Highfill, E. J. Cave Springs
Horton, C. W. Hiwassa
Hughes, G. A. Gravett
Hurley, C. E. Bentonville
Lindsey, J. H. Bentonville
Longacre, C. E. Siloam Springs
McHenry, W. A. Rogers
Pickens, W. A. Bentonville
Pickens, E. E. Rogers
Powell, J. T. Maysville
Rice, R. S. Rogers
Rice, C. A. Rogers
Smiley, J. L. Siloam Springs
Webster, John W. Siloam Springs
Wilks, F. M. Gentry
Wilson, C. S. Gentry

Boone County.

Albright, Sam. Bellefonte
Bolinger, John. Lead Hill
Butt, W. A. Omaha
Callen, L. H. Bellefonte
Cooper, B. Everton
Evans, D. E. Harrison
Fowler, J. H. Harrison
Hathcock, A. M. Harrison
Johnson, J. J. Harrison
Kirby, F. B. Harrison
Kirby, L. Harrison
McCurry, D. K. Alpena Pass
Routh, Charles M. Harrison
Routh, H. L. Batavia
Sims, J. L. Harrison

Bradley County.

Barnett, S. H. Warren
Crow, M. T. Ingalls
Fike, W. T. Warren
Ganaway, C. E. Warren
Green, B. H. Warren
Jackson, D. A. Vick
Martin, C. N. Warren
Martin, R. Warren
Porter, G. S. Warren
Wilson, George. Hermitage
Wommack, W. E. Hermitage
Underwood, J. A. Banks

Calhoun County.

Black, C. T. Thornton
Jones, E. T. Hampton
Jones, E. Harrell
Rhine, T. E. Thornton
Wilson, D. F. Hampton

Carroll County

Bolton, J. Fred. Eureka Springs
Clare, M. W. San Diego, Cal.
Donaldson, C. W. Green Forest
Ezell, W. D. Eureka Springs
Floyd, R. G. Eureka Springs
George, W. P. Berryville
George, Charles A. Berryville
Harvey, W. A. Berryville
Huntington, R. H. Eureka Springs
Jordan, J. D. Eureka Springs
John, J. F. Eureka Springs
Morrow, F. R. Green Forest
Pace, Henry. Eureka Springs
Poynor, E. E. Green Forest
Poynor, J. W. Osage
Price, C. T. Denver
Reynolds, J. R. Grand View

Chicot County.

Anderson, A. G. Eudora
Baker, E. Dermott
Barlow, E. E. Dermott
Boll, W. P. Dermott
Craig, William A. Grand Lake
Douglass, S. W. Eudora
Henry, R. N. Lake Village

McGehee, E. P. Lake Village
Miller, R. D. McGehee
Norton, M. M. Lake Village
Parr, H. H. Eudora

Clay County.

Black, J. C. Corning
Crow, C. L. St. Francis
Cunning, I. H. Knobel
Hiller, J. P. Pollard
Hughey, M. C. Rector
Latimer, N. J. Corning
Lunt, J. P. Leonard
Nelson, F. L. Corning
Newkirk, C. H. Datto
Richardson, M. C. Datto
Simpson, A. R. Corning
Waddle, M. V. B. Success

Clark County.

Bell, J. H. Arkadelphia
Cuffman, J. H. Gurdon
Doane, S. A. Arkadelphia
McClean, C. W. Gurdon
Moore, W. M. Arkadelphia
Rowland, W. T. Arkadelphia
Townsend, N. R. Arkadelphia
Wallace, J. C. Arkadelphia
Williams, E. K. Arkadelphia

Cleveland County

Carter, J. D. Staves
Hamilton, A. J. Rison
Hartsell, W. L. Warren
Hartsell, R. L. Herbine
Hughes, A. A. New Gascony
Johnson, S. C. Kingsland
Leila, C. Kingsland
Sadler, H. D. Rison
Vance, J. O. New Edinburg
Wilson, H. O. Randall
Wolford, W. S. Kingsland

Columbia County

Baker, J. J. Magnolia
Cooksie, W. P. Atlanta
Hill, C. H. Village
Hunt, W. H. Magnolia
Longino, H. A. Magnolia
McWilliams, T. Village
Sanders, G. P. McNeil
Smith, P. M. Magnolia
Stevens, C. D. Magnolia
Stevenson, W. A. Magnolia
Twitt, Walter. Emerson
Vaughan, J. T. Emerson
Walker, J. C. Emerson
Whaley, W. T. McNeil

Conway County.

Bearden, Fred. Morrilton
Bradley, A. R. Morrilton
Clark, C. D. Morrilton
Goatcher, A. L. Plumerville
Gordon, F. Morrilton
Horton, Neal. Plumerville
Logan, B. C. Morrilton
Presley, W. L. Morrilton
Ringgold, G. W. Morrilton
Yates, George. Morrilton

Craighead County.

Altman, J. T. Jonesboro
Buckman, B. J. Dee
Ellis, John W. Jonesboro
Hale, W. S. Jonesboro
Haltom, W. C. Jonesboro
Jackson, W. W. Jonesboro
Lutterloh, C. M. Jonesboro
McAdams, H. H. Jonesboro
Pierce, A. G. Jonesboro
Ramsey, J. W. Jonesboro
Ratliffe, R. W. Jonesboro
Simpson, W. S. Bono
Stroud, H. A. Jonesboro
Walker, B. F. Nettleton
Willett, R. H. Jonesboro

Crawford County.

Bennett, Burrel L. Van Buren
Blakemore, J. E. Van Buren
Bourland, O. M. Van Buren
Dibrell, M. S. Van Buren
Galloway, Q. R. Alma
Haney, E. L. Dyer
Kirkland, Samuel W. Van Buren
Lucas, Giles. Van Buren
Mitchell, J. D. Uniontown
Parchman, W. L. Van Buren
Phillips, J. E. Van Buren
Reeves, W. R. Alma
Sharp, J. C. Alma
Wigley, J. A. Mulberry

Cross County.

Griffin, J. L. Vanndale
Hare, J. L. Wynne

McKie, W. H. Wynne
Longest, R. Wynne
Stewart, T. J. Wynne

Crittenden County.

Blue, W. R. Parkin
Borum, W. M. Vincent
Crocket, B. N. Crawfordville
Hicks, W. P. Earle
Hare, T. S. Crawfordville
Matthews, J. H. Earle
McVey, E. A. Seyppel
McVay, L. C. Marion
Parker, A. C. Clarksdale
White, R. S. Earle

Dallas County.

Atkinson, H. H. Fordyce
Cheatham, H. A. Princeton
Harrison, F. E. Fordyce
Hope, O. W. Fordyce
Kelly, M. D. Carthage
March, C. J. Fordyce
Wozencraft, W. L. Holly Springs

Desha County.

Biscoe, G. Pendleton
Bowles, T. H. Dumas
Isom, A. Dumas
McCammon, Vernon. Arkansas City
Price, C. C. Dumas
Smith, H. T. McGehee
Smith, C. P. Arkansas City
Stuart, J. M. McGehee
White, J. A. Dumas
White, J. F. McGehee

Drew County.

Baker, J. P. Blissville
Brown, W. A. Monticello
Castile, H. Winchester
Cheers, J. T. Winchester
Collins, A. S. J. Monticello
Corrigan, M. B. Monticello
Cotham, E. R. Monticello
Duckworth, F. L. Monticello
Fletcher, G. W. Tillar
Kimbro, S. O. Monticello
Kimbro, W. C. Monticello
Linsbee, A. M. Collins
Pipkin, J. W. Tillar
Pope, M. Y. Monticello
Smith, R. N. Collins
Stanley, A. C. Tillar
Thompson, J. A. Dermott

Faulkner County.

Blakely, G. W. Conway
Brown, George S. Conway
DeJarnett, J. W. Guy
Dickerson, C. H. Conway
Downs, Joseph H. Vilonia
Greeson, W. R. Conway
Hardy, H. B. Greenbrier
Harrod, G. W. Z. Vilonia
Henderson, G. L. Greenbrier
Holoway, E. E. Mayflower
Mabray, Thomas M. Holland
McCollum, I. N. Conway
McMahan, J. E. Conway
Munn, J. B. Vilonia
Snoddy, T. B. Salltillo
Westerfield, J. S. Conway

Franklin County.

Benefield, C. E. Charleston
Blackburn, E. W. Ozark
Blakely, T. B. Coal Hill
Blakely, J. P. Alix
Bowen, A. L. Cass
Burgess, T. S. Altus
Douglass, Thomas. Ozark
Downey, R. L. Cecil
Gibbons, W. H. Webb City
Harrod, J. C. Denning
Houston, Hugh. Altus
Hudson, E. M. Little Rock
Jacobs, L. I. Hunt
Jones, W. E. Paris
Porter, W. C. Coal Hill
Post, J. L. Altus
Ramho, W. W. Alston
Warren, G. D. Ozark
Wear, W. M. Etna
Williams, R. F. Ozark

Garland County.

Barry, L. H. Hot Springs
Biggs, Orvis. Hot Springs
Burton, O. H. Hot Springs
Bush, J. W. Hot Springs
Connell, W. H. Hot Springs
Chesnutt, James H. Hot Springs
Collings, H. P. Hot Springs
Collings, S. P. Hot Springs
Cook, A. H. Hot Springs

Cox, W. E.	Hot Springs
Dake, W.	Hot Springs
Dake, Charles	Hot Springs
Davis, R. G.	Hot Springs
Deadrick, W. H.	Hot Springs
DeWoody, L. C.	Hot Springs
Drennen, C. Travis	Hot Springs
Eastman, E. H.	Hot Springs
Ellis, L. R.	Hot Springs
Ellsworth, C. H.	Hot Springs
Estis, L. B.	Hot Springs
Fewkes, J.	Hot Springs
Forbes, W. O.	Hot Springs
Garnett, A. S.	Hot Springs
Grey, D. A.	Hot Springs
Hallman, V. H.	Hot Springs
Harrell, M. L.	Hot Springs
Herbert, G. A.	Hot Springs
Henderson, W. B.	Hot Springs
Holland, T. E.	Hot Springs
Holland, E. D.	Hot Springs
Horner, J. S.	Hot Springs
Jelks, F. W.	Hot Springs
Jelks, J. T.	Hot Springs
Johns, P. W.	Hot Springs
Lanning, W. B.	Hot Springs
Laws, M. V.	Hot Springs
Livingston, J. J.	Hot Springs
Martin, E. H.	Hot Springs
McConnell, C. A.	Hot Springs
McClendon, J. W.	Hot Springs
Mohbs, B.	Hot Springs
Mount, M. F.	Hot Springs
Proctor, J. M.	Hot Springs
Purdum, E. A.	Hot Springs
Randolph, J. P.	Hot Springs
Rider, E. B.	Hot Springs
Robertson, J. A.	Hot Springs
Rowland, J. F.	Hot Springs
Rowland, R. B.	Hot Springs
Sanders, T. E.	Hot Springs
Staw, A. D.	Hot Springs
Shaw, J. B.	Hot Springs
Short, Z. N.	Hot Springs
Simpson, R. A.	Hot Springs
Smith, J. W.	Hot Springs
Smith, W. K.	Hot Springs
Snyder, W. L.	Hot Springs
Steele, S. B.	Hot Springs
Strachan, J. B.	Hot Springs
Steer, S. L.	Hot Springs
Strachan, H. M.	Hot Springs
Thompson, M. G.	Hot Springs
Thompson, M. G.	Hot Springs
Tribble, A. H.	Hot Springs
Thompson, E. L.	Hot Springs
Vaughan, P. T.	Hot Springs
Vines, F. P.	Hot Springs
Weil, S. D.	Hot Springs
Weimer, R.	Hot Springs
Williams, A. U.	Hot Springs
Williams, F. M.	Hot Springs
Winegar, E. F.	Hot Springs
Wood, J. S.	Hot Springs
Wootten, W. T.	Hot Springs

Grant County.

Butler, J. L.	Sheridan
Caple, C. B.	Grape Vine
Cheney, S. H.	Prague
Jones, J. E.	Sheridan
Kelly, O. R.	Sheridan
Matlock, G. S.	Leola
Shaw, J. B.	Sheridan
Whitehead, S. H.	Ain
Young, J. U.	Hot Springs

Greene County

Baker, E. S.	Paragould
Bradsher, R. E.	Marmaduke
Chapman, E. J.	Paragould
Cohn, George	Lafe
Cothren, Thad.	Walcott
Dickson, H. N.	Paragould
Dickson, P. L.	Paragould
Graham, M. C.	Gainesville
Haley, R. J.	Paragould
Hardesty, C. A.	Paragould
Hopkins, G. T.	Paragould
Hudgins, J. J.	Haliday
Hutcherson, E. R.	Delaplaine
Kennedy, E. L.	Marmaduke
Lamb, Jones	Beech Grove
Majors, W. W.	Walcott
McKenzie, J. G.	Paragould
Owens, W. R.	Paragould
Scott, F. M.	Paragould
Tyneer, H. V.	Paragould

Hempstead County.

Autry, J. B.	Columbus
Bell, Minto	Blevins
B'Shears, L. H. B.	Fulton
Cannon, J. E.	Hope
Carriagan, P. B.	Hope
Coulter, W. W.	Cummins
Garner, T. J.	Washington
Garrett, H. J. F.	Hope

Giles, H. R.	Hope
Gillespie, L. J.	Hope
Hays, R. E.	Fulton
Henry, J. A.	Hope
Kelly, J. L.	Hope
Robbins, W. F.	Ozan
Russell, M. V.	Hope
Saner, W. F.	Hope
Smith, Don	Hope
Waddle, J. S.	Hope
Weaver, S. J.	Fulton
Weaver, J. H.	Hope
Weaver, R. E.	Hope

Hot Spring County.

Blakely, M. M.	Social Hill
Bramlitt, E. T.	Malvern
Carroll, W. A.	Malvern
Cox, J. A.	Donaldson
Hardy, H.	Malvern
Hodges, W. G.	Malvern
McCray, E. H.	Malvern
Phillips, R. Y.	Malvern
Williams, J. M.	Malvern

Howard County.

Alford, T. A.	Murfreesboro
Bell, J. L.	Highland
Diddy, E. V.	Nashville
Gibson, W. M.	Nashville
Hale, A. W.	Nashville
Hopkins, J. S.	Nashville
Hutchinson, D. A.	Nashville
Roberts, J. L.	Murfreesboro
Toland, W. H.	Nashville

Independence County.

Ball, W. F.	Batesville
Bone, O. L.	Cushman
Case, J. W.	Batesville
Craig, Stark	Batesville
Dorr, R. C.	Batesville
Drennen, S. A.	Batesville
Evans, A. A.	Newark
Evans, L. T.	Barren Fork
Gray, F. A.	Batesville
Gray, C. C.	Cave City
Heyden, J.	Bethesda
Hinkle, C. G.	Batesville
Jeffery, Paul	Bethesda
Johnson, O. J. T.	Batesville
Kennerly, J. H.	Batesville
Lawrence, W. B.	Batesville
Long, W. J.	Sulphur Rock
McAdams, V. D.	Cord
Moore, William P.	Newark
Pascoe, V. L.	Newark
Roberson, S. N.	Sulphur Rock
Rodman, T. N.	Newark
Roe, J. B.	Newark
Smith, H. H.	Calico Rock
Wyatt, W. A.	Rosie

Jackson County.

Best, A. L.	Newport
Boyd, F. M.	Jacksonport
Causey, G. A.	Swifton
Erwin, I. H.	Newport
George, C. E.	Grubbs
Graham, J. S.	Tuckerman
Gray, C. R.	Newport
Jamison, O. A.	Tuckerman
Jones, O. E.	Newport
Kimberlin, K. K.	Tuckerman
Martin, C. W.	Newport
Norris, R. O.	Auvergne
Slavdon, L. T.	Tuckerman
Stephens, G. K.	Newport
Walker, H. O.	Newport
Watson, E. L.	Newport
Willis, L. E.	Newport
Wilson, W. F.	Elmo

Jefferson County.

Blankenship, W. H.	Pine Bluff
Breathwit, W. M.	Pine Bluff
Caruthers, Jr., C. K.	Pine Bluff
Crumm, J. F.	Pine Bluff
Crutcher, W. M.	Pine Bluff
Doss, N. C.	Pine Bluff
Glover, C. A.	Pine Bluff
Jenkins, J. S.	Pine Bluff
John, J. W.	Pine Bluff
Jordan, A. C.	Pine Bluff
Lemons, J. M.	Pine Bluff
Love, W. T.	Pine Bluff
Loeb, B. D.	Pine Bluff
McMullen, E. C.	Pine Bluff
Palmer, J. T.	Pine Bluff
Rawell, E. C.	Pine Bluff
Seales, J. W.	Pine Bluff
Shelton, M. A.	Wahbasaka
Smith, J. S.	Pine Bluff
Stallards, J. S.	Pine Bluff
Stewart, W. S.	Pine Bluff
Thompson, A. G.	Pine Bluff
Troupe, A. W.	Pine Bluff

Williams, H. E., Sr.	Pine Bluff
Williams, H. E., Jr.	Pine Bluff
Withers, J. W.	Pine Bluff
Woodul, T. W.	Pine Bluff
Wright, C. E.	Alzheimer

Johnson County.

Barger, M. I.	Lamar
Burgess, M. E.	Lamar
Burgess, T. E.	Lamar
Bradley, John F.	Lamar
Cook, L. A.	London
Graves, S. M.	Mount Levi
Gray, L. C.	Clarksville
Hardgraves, G. L.	Harmony
Hays, A.	Clarksville
Hunt, William R.	Clarksville
Hunt, E. H.	Clarksville
Kolt, J. S.	Clarksville
Manly, Robert N.	Lamar
Mooney, J. D.	Lone Pine
Robinson, Charles E.	Clarksville

Lafayette County.

Baker, F. E.	Stamps
Bright, D. W.	Lewisville
Hoover, A. S.	Stamps
McKnight, J. F.	Walnut Hill
Youmans, F. W.	Lewisville

Lawrence County.

Bell, C. C.	Ravendon
Coffman, J. W.	Black Rock
Elders, J. W.	Alicia
Guthrie, T. C.	Jessup
Hatcher, Wright	Imboden
Henderson, A. G.	Imboden
Hughes, J. C.	Walnut Ridge
Johnson, William	Hardy
McCarroll, H. R.	Walnut Ridge
Morris, J. W.	Denton
Neece, T. C.	Walnut Ridge
Peacock, A. L.	Lynn
Poindexter, J. C.	Imboden
Ponder, E. T.	Walnut Ridge
Robinson, W. J.	Portia
Smith, W. A.	Walnut Ridge
Smith, F. D.	Alicia
Stephens, J. M.	Lauratown
Steen, T. E.	Black Rock
Stidham, J. H.	Hoxie
Swindle, J. C.	Walnut Ridge
Thomas, E.	Hoxie
Townsend, C. C.	Walnut Ridge
Warren, G. A.	Black Rock
Watkins, G. M.	Walnut Ridge

Lee County.

Bean, W. B.	Marianna
Beaty, W. S.	Vineyard
Chaffin, C. W.	Moro
Foster, G. F.	LaGrange
Gray, E. M.	Evening Shade
Haynie, William R.	Haynes
Ingram, T. H.	Marianna
Lewis, J. F.	Marianna
Longley, W. W.	Marianna
McClendon, A. A.	Marianna
Wall, E. D.	Marianna
Williamson, O. L.	Marianna
Wilsford, A. L.	Moro
Russwurm, C. S.	LaGrange
White, Harry	Rondo

Little River County.

Bishop, A. B.	Ashdown
Cathey, A. B.	Wilton
Chase, J. B.	Cerro Gordo
Harvey, H.	Cerro Gordo
Kirkham, Z. L.	Ashdown
Marr, S. C.	Ashdown
Massey, F. O.	Foreman
Peavy, J. L.	Winthrop
Phillips, P. H.	Ashdown
Ringgold, J. W.	Ashdown
Schackelford, L. C.	Foreman
Schackelford, T. T.	Foreman
Shirey, W. L.	Foreman
Stevens, D. L.	Foreman
Van Alstine, F. L.	Winthrop
Vaughan, W. E.	Richmond
York, W. W.	Ashdown

Lincoln County.

Dickson, W. C.	Star City
Dixon, C. W.	Douglass
McClain, J. K.	Star City
Raines, T. W.	Star City
Tarver, B. F.	Star City
Thiolliere, A.	Varner
Watt, J. D.	Tyro

Logan County.

Armstrong, N. E.	Booneville
Baker, E. G.	Booneville
Baskerville, W. S.	Booneville
Bennett, W. H.	Paris
Foster, M. E.	Paris
Harkins, R. A.	Ratcliffe

Hederick, A. R. Booneville
Hooper, W. F. Magazine
Lipe, E. N. Scranton
McConnell, S. P. Booneville
Scott, Earl E. Magazine
Smith, J. J. Paris
Smith, A. M. Paris
Stewart, John. Booneville
Thompson, R. C. Spillerville
Wood, G. C. Subiaco

Lonoke County.

Abbott, C. C. Pettus
Beaty, S. S. England
Benton, T. E. Lonoke
Calahan, A. E. Carlisle
Campbell, W. A. Ward
Chenault, J. C. England
Corn, F. A. Lonoke
Cunning, John R. Lonoke
Englund, John F. England
Fly, T. M. Little Rock
Granberry, G. W. Carlisle
Granberry, G. W. Cabot
Hardy, F. P. Carlisle
Nevis, J. D. Tucker
Southall, S. A. Lonoke
Thibault, H. Scott
Ward, O. D. England

Madison County.

Berry, F. O. Hindsville
Bohannon, J. H. Huntsville
Counts, G. D. Wesley
Hill, N. J. Drake's Creek
Knight, M. Huntsville
Moore, W. A. Hindsville
Potts, J. R. Spring Valley
Roberts, D. C. Hindsville
Youngblood, F. Huntsville

Miller County.

Abell, G. C. Texarkana
Beck, E. L. Texarkana
Center, W. B. Garland
Cook, J. C. Garland
Collam, S. A. Texarkana
Dale, J. R. Texarkana
Dale, Rodney. Texarkana
Dixon, B. E. Texarkana
Francis, J. W. Texarkana
Fuller, Earl. Texarkana
Grant, R. L. Texarkana
Hunt, Preston. Texarkana
Kelly, K. M. Texarkana
Kittrell, T. F. Texarkana
Kosminsky, L. J. Texarkana
Lanier, L. H. Texarkana
Lee, A. G. Texarkana
Lightfoot, J. A. Texarkana
Mann, R. H. T. Texarkana
Middleton, B. C. Texarkana
Montgomery, S. K. Texarkana
Smith, C. A. Texarkana
Smith, J. K. Texarkana
Smiley, H. H. Texarkana
Watts, E. M. Texarkana
Webster, H. R. Texarkana
White, J. N. Texarkana

Montgomery County.

Baggett, E. A. Womble
Cole, J. H. Liberty
Freeman, I. N. Mount Ida
Freeman, W. D. Mount Ida
Kennedy, L. S. Mount Ida
Murphy, J. H. Mimosa
Robbins, J. D. Oden
Stewart, J. B. Womble

Mississippi County.

Campbell, J. H. Bardstown
Craig, E. E. Wilson
Crawford, H. F. Wilson
Dunavant, H. C. Osceola
Franklin, A. L. Blytheville
Hammer, J. H. Marie
Harwell, C. M. Osceola
Hill, E. V. Yarbrow
Howton, O. Osceola
Hudson, T. F. Luxora
Lowry, S. A. Luxora
Lunsford, C. B. Chickasawba
McCall, W. S. Barfield
Nall, R. P. Armoral
Noack, P. G. Bardstown
Nowlin, R. T. Bassette
Owens, W. H. Joiner
Polk, W. T. Blytheville
Prewitt, R. C. Osceola
Sanders, J. F. Blytheville
Taylor, T. F. Osceola
Turrentine, A. E. Blytheville
Turner, W. E. Butler

Monroe County.

Bradley, W. T. Monroe
Gilbrich, A. H. Clarendon
Johnson, P. E. Holly Grove

McKnight, E. D. Brinkley
Miller, J. C. Clarendon
Murphy, N. E. Clarendon
Murphy, F. T. Brinkley
Thomas, P. E. Clarendon
Thomas, P. E., Jr. Clarendon
Stout, T. J. Brinkley
Sylar, T. B. Holly Grove

Nevada County.

Buchanan, A. S. Prescott
Buchanan, G. A. Prescott
Gee, Sam B. Prescott
Henry, H. B. Prescott
Hesterly, S. J. Prescott
Reader, A. A. Prescott
Rice, W. W. Prescott
Sanlin, J. T. Emmet

Ouachita County.

Byrd, E. J. Millville
Davison, A. Camden
Early, O. S. Camden
Halton, N. F. Buena Vista
Henry, H. H. Eagle Mills
Mahan, J. M. Bearden
Meek, J. W. Cauden
Newton, W. L. Camden
Powell, B. V. Sayre
Purifoy, W. A. Chidester
Rinehart, J. S. Camden
Rushing, J. L. Chidester
Simmons, W. H. Fordyce
Thompson, J. S. Stephens
Thompson, H. F. Bearden
Word, N. S. Camden

Perry County.

Blackwell, W. J. Bigelow
Holliman, J. H. Bigelow
Howard, M. E. Perryville
Jones, R. A. Houston
Kubale, Edwin. Bigelow
Mathews, J. M. Alpin
Mathews, E. L. Alpin
Monerief, J. J. Bigelow
Reif, W. L. Perryville
Vernillion, W. H. Bigelow

Phillips County.

Altman, C. G. Helena
Bean, J. W. Marvell
Brown, E. P. Lexa
Bruce, W. B. Trenton
Cox, A. W. Helena
Cox, A. E. Helena
Ellis, J. B. Helena
Fink, M. Helena
Hall, L. Turner
Henry, M. Helena
King, W. C. Helena
Orr, W. R. Helena
Parker, Ollie. Elaine
Rightor, H. H. Helena
Rembert, J. C. Wabash
Russwurm, W. C. Helena
Stevenson, B. M. Mellwood
Thompson, H. M. Marvell
Trotter, C. H. Helena

Pike County.

Baker, J. E. Antoine
Baker, W. P. Rosboro
McClure, R. O. Glenwood
Pate, J. N. Daisy
Slaughter, N. J. Delight
Stokes, B. S. Delight
Thomasson, Joe. Bills
Tolleson, G. W. Kirby
Watson, W. S. Amity

Polk County.

Bizzell, M. A. Mena
Dunham, G. P. Mena
Elliott, F. B. Mena
Gunnels, C. C. Mena
Ham, J. S. Mena
Hilton, A. D. Grannis
Mullins, F. C. Cove
Parks, W. P. Mena
Watkins, P. R. Mena

Poinsett County.

Alexander, M. S. Jonesboro
Davis, J. C. Harrisburg
Hunn, J. T. Harrisburg
Faull, G. E. Marked Tree
Yarbrough, R. E. Harrisburg

Pope County.

Britt, J. B. Russellville
Berryman, L. D. Russellville
Campbell, J. M. Russellville
Drummond, R. M. Russellville
Hays, J. F. Russellville
Kolb, W. B. Atkins
Montgomery, W. A. Atkins
Powell, J. W. Russellville

Ross, C. J. Gum Log
Rye, A. W. London
Stanford, J. M. Hector
Teeter, C. R. Pottsville

Prairie County.

Gillman, J. C. Des Arc
Hipolite, F. A. Devall's Bluff
Hipolite, W. W. Devall's Bluff
Lee, W. Allen. Hazen
Lynn, J. R. Hazen
Parker, James. Devall's Bluff
Porter, T. G. Hazen
Robinson, F. C. Hazen

Pulaski County.

Allen, John. Wye
Aulen, E. B. Wye
Allen, E. N. Little Rock
Aronson, Joseph D. Little Rock
Arkebauer, C. A. Little Rock
Bailey, W. E. Little Rock
Bathurst, William R. Little Rock
Bentley, E. Little Rock
Bentley, C. E. Little Rock
Bledsoe, E. P. Little Rock
Bond, S. P. Little Rock
Brooks, C. M. Roland
Browning, H. W. Little Rock
Caldwell, R. Little Rock
Carmichael, A. L. Little Rock
Cates, Thomas H. Little Rock
Chesnutt, C. R. Little Rock
Cunningham, J. C. Little Rock
Daly, M. G. Little Rock
Davis, E. N. Little Rock
Darnell, R. F. Little Rock
Dibrell, J. R. Little Rock
Dibrell, J. L. Little Rock
Dooley, J. B. Little Rock
Doyne, C. R. Little Rock
Dunaway, W. C. Little Rock
Falisi, J. V. Little Rock
Fillmore, R. S. Wye
Fletcher, George B. Little Rock
Flinn, B. W. Little Rock
Foster, R. C. Argenta
Freedman, Theo. Argenta
Freemeyer, W. N. Little Rock
French, F. L. Little Rock
Gates, S. M. Little Rock
Garrison, C. W. Little Rock
Gibson, L. P. Little Rock
Gray, Oscar. Little Rock
Green, J. L. Little Rock
Hankinson, O. C. Little Rock
Hardeman, D. R. Little Rock
Harris, A. E. Little Rock
Hodges, E. E. Little Rock
Holiman, J. E. T. Little Rock
Hooke, S. W. Little Rock
Howell, A. R. Argenta
Hurle, F. E. Little Rock
Jewell, I. H. Paris
Johnston, E. E. Little Rock
Judd, O. K. Little Rock
Kirby, H. H. Little Rock
Kory, R. C. Little Rock
Lenow, James H. Little Rock
Manglesdorf, W. F. Little Rock
Maxwell, R. L. Little Rock
May, W. S. Little Rock
May, J. R. Clio
McCaskill, M. E. Little Rock
McCurry, W. T. Little Rock
McGill, A. G. Little Rock
McKinney, A. T. Argenta
McNeil, M. P. Little Rock
McRae, W. M. Little Rock
Meek, E. Little Rock
Meriwether, C. P. Little Rock
Miller, W. H. Little Rock
Moore, G. C. Little Rock
Ogden, M. D. Little Rock
Pate, C. N. Little Rock
Pemberton, E. M. Little Rock
Pettus, C. S. Little Rock
Prothro, H. Argenta
Reagan, L. D. Little Rock
Reed, C. C. Little Rock
Roberts, D. W. Little Rock
Runyan, J. P. Little Rock
Saxon, R. L. Little Rock
Scott, C. V. Little Rock
Sharp, E. Argenta
Sheppard, J. P. Little Rock
Shinault, C. R. Biloxi, Miss.
Smith, W. F. Little Rock
Smith, Morgan. Little Rock
Snodgrass, W. A. Little Rock
Stover, A. R. Little Rock
Street, H. N. Little Rock
Thompson, L. O. Little Rock
Vaughan, Milton. Little Rock
Villars, H. F. Little Rock
Vinsonhafer, F. Little Rock
Wadley, B. L. Little Rock
Walt, D. C. Little Rock

Watkins, A. Little Rock
 Watkins, J. G. Little Rock
 Wayne, J. R. Little Rock
 Witt, C. E. Little Rock
 Zell, A. M. Little Rock

Randolph County.

Black, G. M. Pocahontas
 Brown, John Pocahontas
 Fowler, Charles Supply
 Hamil, W. E. Pocahontas
 Hall, L. H. Pocahontas
 Hull, H. B. Ravenden Springs
 Johnson, R. R. Holmes
 Johnson, R. Z. Holmes
 Johnson, J. J. Biggers
 Loftis, J. R. Maynard
 Pringle, C. E. Pocahontas
 Shaver, P. M. Biggers
 Scheidt, Carl Pocahontas
 Spikes, J. M. Swartz
 Throgmorton, H. L. Pocahontas

St. Francis County.

Alley, W. H. Forrest City
 Bogart, J. A. Forrest City
 Boggan, P. P. Forrest City
 Caldwell, L. A. Caldwell
 Chaffin, E. J. Hughes
 Longest, J. T. Forrest City
 McDougal, J. F. Forrest City
 Merritt, L. H. Forrest City
 Oliver, R. E. New Castle
 Pelton, D. A. Forrest City
 Pool, E. J. Forrest City
 Reynolds, J. C. Colt
 Rush, J. O. Forrest City
 Winters, W. A. Proctor

Saline County.

Brunner, E. C. Bauxite
 Crawford, J. B. Benton
 Elliott, J. E. Mabelvale
 Gann, Dewell Benton
 Graham, A. J. Little Rock
 Kelly, W. Benton
 Melton, J. W. Slocomb
 Phillips, J. W. Benton
 Prickett, C. Traskwood
 Walton, J. W. Benton
 Ward, W. W. Alexander
 Scott, C. Bland
 Steed, C. J. Alexander

Sebastian County.

Amis, J. C. Fort Smith
 Bollinger, I. W. Jenny Lind
 Brooksher, W. R. Fort Smith
 Brooksher, S. L. Fort Smith
 Brown, E. J. Huntington
 Buckley, J. H. Fort Smith
 Carlin, R. G. Fort Smith
 Coffman, J. S. Lavaca
 Cooper, St. Cloud Fort Smith
 Dorente, D. R. Fort Smith
 Duncan, L. S. Waldron
 Eberle, J. G. Fort Smith
 Epler, E. G. Fort Smith
 Foltz, James A. Fort Smith
 Foster, J. H. Fort Smith
 Foster, M. E. Fort Smith
 Freer, B. W. Fort Smith
 Gardner, D. M. Fort Smith
 Hampson, J. K. Fort Smith
 Hardin, A. E. Fort Smith
 Hawkins, B. H. Parks
 Holt, C. S. Fort Smith
 Hynes, George T. Fort Smith
 Johnston, Hugh Fort Smith
 Jones, E. B. Hartford
 King, H. C. Fort Smith
 Leming, I. K. Waldron

McGinty, J. M. Fort Smith
 McKelvey, A. A. Greenwood
 Means, C. S. Jenny Lind
 Moulton, H. Fort Smith
 Myers, E. C. Fort Smith
 Neal, J. Hal, Jr. Fort Smith
 Neal, William J. Fort Smith
 Ozment, S. J. Fort Smith
 Parks, R. F. Bonanza
 Perry, M. L. Greenwood
 Perry, J. F. Greenwood
 Riddler, P. A. Fort Smith
 Ryan, J. A. Fort Smith
 Sims, D. A. Fort Smith
 Southard, J. D. Fort Smith
 Ware, Bert L. Greenwood
 Weems, H. Fort Smith
 Wilder, A. W. Fort Smith
 Wilson, Cons P. Fort Smith
 Wolferman, S. J. Fort Smith
 Wood, Clark Fort Smith
 Woods, G. G. Huntington

Searcy County.

Butler, J. S. Marshall
 Cotton, J. O. Leslie
 Daniel, S. G. Marshall
 Findly, Eugene Marshall
 Hamm, S. G. Point Peter
 Henley, J. A. St. Joe
 Melton, A. S. Snowball
 Robertson, L. D. Leslie
 Rogers, William F. St. Joe
 Smith, Ira Leslie
 Wood, E. W. Marshall

Sevier County.

Archer, C. A. DeQueen
 Armstrong, B. M. Ben Lomond
 Beauchamp, J. M. DeQueen
 Clingan, A. J. Ben Lomond
 Guthery, J. E. Paraloma
 Hammonds, O. O. DeQueen
 Hopkins, R. L. DeQueen
 Hopson, E. W. Lockesburg
 Isbell, F. T. Horatio
 Kitchens, C. E. DeQueen
 McCroskie, M. R. Lockesburg
 Musser, J. F. Ben Lomond
 Norwood, M. L. Lockesburg

Union County.

Buckley, E. A. Lapile
 Burnes, R. P. Callion
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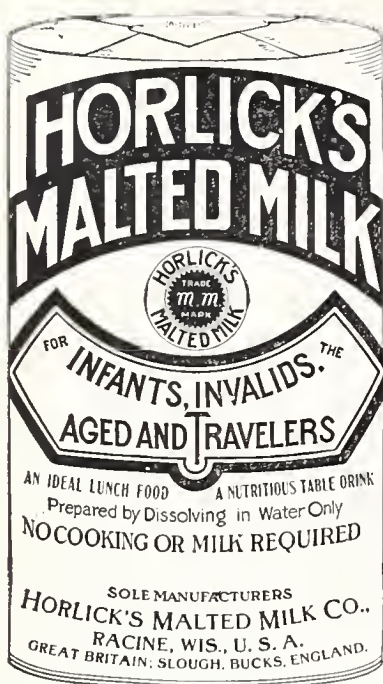
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No. 4

Original Articles.

TUMORS OF THE BREAST.*

By St. Cloud Cooper, M. D.,
Fort Smith.

"Any lump in any woman's breast is better out than in."—Finney.

"When a tumor or swelling definitely palpable with the flat of the hand appears for the first time in a woman over forty, the spectre of cancer arises, no matter how innocent the characters of the tumor appear to be."—Handley.

"But as clearly as I can express my opinion by words whose significance we all understand, it is this: We should remove breast and all, those tumors in the diagnosis of which there is uncertainty to call that uncertainty a reasonable doubt. We should remove from the breast or explore those tumors in the benignancy of which we have enough indecision to call that indecision a reasonable doubt. We should leave untouched only those growths in which we are positive that we would let them go in the ease of our nearest and dearest."—Richardson.

We call tumors of the breast benign or malignant or we speak of them as being new growths or inflammatory growths.

The mammary gland of the female remains in a rudimentary state from birth to the beginning of puberty. At the beginning of menstrual life it takes on the full functioning power ready to perform nature's requirement. During pregnancy it becomes an active secreting gland ready to supply food to the offspring. This state is transient and ends when the child stops nursing. At the end of the child bearing period the gland becomes wasted and atrophy occurs. During the active period of the gland it is subject

to many stimulating influences, traumatisms, infections and insults.

Breasts full rounded and well developed are desired by all females. The contemplation of these "Royal Batteries" have excited the admiration of men from the beginning and have brought havoc to the best of men.

Family physicians hesitate to advise a mutilating operation on this organ of beauty, hence many women come to the surgeon too late for the saving of life. The fear of mutilating takes possession of us and we forget the spectre of cancer. A patient dying of cancer is a nightmare we all wish to avoid.

Judd says: "Eighty-five per cent of all tumors in a woman's breast are malignant to start with, and it is estimated by the best of authorities that one-half of the remaining fifteen per cent will become malignant if the woman lives long enough." If this be so, we will hardly make a mistake if we remove the whole breast of women in early life, when applying to us for advice and treatment.

According to Bloodgood: "The average duration of life of a cancer of the breast from onset of the disease to death, is but 3.77 years. It is possible for cancer of the breast to produce death within six months, but it is unusual (less than one per cent.) Fifty-six per cent died within three years, but forty-one per cent lived from three to eight years. Twelve per cent lived from five to eight years and three per cent from eight to sixteen years. A few observations of a duration of life longer than nine years are the so-called atrophic scirrhus variety." Bloodgood further says: "That in females under twenty-five years of age the probabilities are that every single tumor in the breast is benign. It is safe, therefore, to consider a tumor in a woman under twenty-five benign until it is proved malignant. On the other hand every single tumor in the breast of a woman over twenty-five should be considered ma-

*Read in the Section on Surgery of the Arkansas Medical Society at the Thirty-eighth Annual Session, held at El Dorado, May 19-22, 1914.

lignant until it is proved benign. An operator who has removed many tumors from the breasts of women under twenty-five learns to recognize the benign growth and when operating on older women he may be able on most occasions to distinguish a benign from a malignant growth. That until surgeons acquire this experience he believes the greatest good will be accomplished by performing the complete operation in all cases in which, at the exploratory incision the surgeon is unable to convince himself that the tumor is benign."

The presence of tumors in both breasts is usually looked upon as favorable to simple growths, but must not be relied upon. The writer has had four cases of bilateral cancer in women aged twenty-nine, thirty-two, forty-three and fifty-two, respectively.

The history of the duration of the growth is not to be relied upon, for a tumor may be benign at the beginning and only lately undergo malignant degeneration. Primrose says: "The fact that malignant degeneration of benign growths in the breast is of frequent occurrence is obviously another convincing argument for removal of all breast tumors. A recent study by Speese showed that no less than twenty-six per cent of all cases of chronic mastitis (that is, that form of 'abnormal involution' occurring at menopause) examined by him showed malignancy. So, too, cyst adenomas are found associated with carcinoma, the frequency of such association being placed as high as fifteen per cent. Inflammatory conditions of the breast resulting in mastitis are often found in the early history of cancer cases. All these facts point conclusively to the frequent occurrence of malignant degeneration in benign growth of the breast."

The "quick section" method of tumors of the breast is open to grave suspicion, for the short time in examining only one part of the tumor is not enough to make one sure that other portions are the same as the section made. The proper examination of a breast tumor requires time to examine many different portions of the tumor. The examination of many parts of a tumor may show a benign condition while some smaller corner of the same growth may show malignancy.

Taking out a tumor of the breast of a woman in the cancer age and temporarily closing the wound until the pathologist makes a report is, in my judgment, bad surgery. Bloodgood says of this practice: "From my observations on specimens sent to the surgical

pathological laboratory, every patient succumbed to carcinoma if at the first operation only the malignant tumor was removed, and later after a microscopic diagnosis, the complete operation was performed." I suspect that many of my hearers can confirm this observation.

Deavor gives the following age incidence in cases of cancer and fibro-epithelioma at the German Hospital Clinic:

Cancer.		Fibro-Epithelial Tumors.	
Ages	No. of Cases.	Ages.	No. of Cases.
20 to 30	5	10 to 20	6
30 to 40	32	20 to 30	25
40 to 50	65	30 to 40	32
50 to 60	65	40 to 50	25
60 to 70	19	50 to 60	6
70 to 80	14		

Metastasis is most common in the lungs, mediastinum, liver, spine, brain, humerus and occasionally the femur. I have seen three cases of lung metastasis following the treatment by caustics employed by the so-called cancer doctors. In each of these cases no evidence of local recurrence could be found, the breasts being smooth and the cicatrices soft; it was a somewhat difficult matter to make the interested parties believe that death was due to cancer involvement of the lungs. Ochsner warns us about the frequent handling of breast tumors. It is probable that the axillary glands are involved very early in cancer cases.

In a collection of 1194 cancer cases operated on by 11 prominent surgeons, the end mortality was 56.63 per cent.

Primrose makes a curious observation about recurrence after operation for cancer. He says: "The longest period elapsing before operation for recurrence was three years for the radical operation, and eight years for the incomplete operation. The shortest period elapsing before operation for recurrence was three months for radical operation, and three months for incomplete operation. The average period elapsing was after radical operation 14.2 months; and after incomplete operation 23.4 months." From Primrose's statistics, recurrence after the radical operation took place sooner than after the incomplete operation. Murphy is rather pessimistic as to final results of operation for cancer of the breast, and believes that our results as to final outcome are no better than our forefathers, who only removed the breast.

The more experience one has with breast tumors, the more cautious one becomes in his

operative work and the more guarded in his prognosis. We have a feeling of doubt as to the nature of every breast tumor seen by us, and this doubt is not wholly removed when we get the report of the pathologist stating that the growth is benign, for may he not have overlooked the part of the tumor which is malignant? By doing the radical operation, then and then only, are we sure that we have done all that can be done.

What operation shall we perform for tumors of the breast? From what we know of breast tumors, we may say that a tumor in the breast of a woman under the age of twenty-five is in all probability benign, and only the tumor is to be removed. A tumor in the breast of a woman between the age of twenty-five and thirty-five is a doubtful proposition, and the safe plan would be to forget about so-called plastic operations, and remove the whole gland, or to the radical operations if there is any doubt about the tumor.

A tumor appearing in the breast of a woman past the age of thirty-five is best dealt with, in my judgment, by the radical operation. If the radical operation is done, the Jabez Jackson incision is made, as this incision makes the best covering; the pectoral muscles should be stripped of their aponeurosis, and then attached to the axilla, as advised by Murphy, to prevent subsequent scar contraction.

If the above advice is followed, we will have many women going through life who have undergone serious disfiguring operations done for benign growths on many occasions, but we can give them a reasonable guarantee against subsequent malignant invasion, and comfort them with the fact that it is better to be maimed than to die of cancer.

This paper is made up largely of citation of authorities and is written for the purpose of urging early operation on all tumors of the breast. Rather looking upon breast tumors as malignant growths from the inception and requiring thorough removal.

If all cases of tumors of the breast could be followed to the end by trained observers, I believe that cancer of the breast would be found to cause more deaths than cancer of the uterus.

In the cases mentioned above in which three women had been treated by so-called cancer doctors, and who afterwards died of lung metastasis, a superficial observer would overlook the lung involvement and attribute death to some "lung trouble," for in all of these three

cases the breast scar was smooth, with no evidence of local recurrence; yet it was a difficult matter to convince the medical attendants and the relatives that death was due to cancer extension to the lung. I am convinced that cases of this kind occur often, and death certificates are given for some other disease.

I wish to mention the good that has resulted from the publication of cancer articles by the lay press. During the past two years, I think that we can say that we have been consulted oftener for breast tumors than any year before; this is due to the articles appearing in the Ladies' Home Journal, Collier's Weekly, McClure's Magazine, Harper's Weekly, Baltimore Sun, Baltimore News, Baltimore American, the New Orleans News-Item and other papers. The entire press of the country copied these articles and in this way called the attention of the layman to the fact that cancer should be dealt with in its early stages. It is estimated that these articles reached a reading public of between eight and ten millions.

DISCUSSION.

Dr. R. C. Dorr (Batesville): When I was asked by the chairman of this section to open the discussion on Dr. Cooper's paper, I had no idea he would cover the subject so completely that there would be nothing for me to say. But I do want to congratulate him on the thoroughness of his paper, of having seen four cases in which both the mammary glands were affected with malignancy, for I have never been fortunate enough to have seen even one.

I think that all authorities have agreed that early and radical operation is the proper treatment for malignant tumors. Only 3 per cent of the tumors of the breast are sarcoma. A report of 518 cases of carcinoma of the breast, coming from the Mayo clinic, the youngest was 20 years, the oldest was 75 years, the average 55½ years.

I want to emphasize the point, that 90 per cent of all tumors of the breast are malignant. Therefore for the surgeon to know the pathology in regard to malignancy, of 90 per cent, it is only necessary for him to be able to diagnose that there is a tumor in the breast.

In conclusion, I want to say, as I perused Dr. Cooper's paper, I could not help but wonder if he had ever thought how kind these royal batteries (the mammary glands) had been to the surgeon. It furnished him his food for nourishment and growth the first twelve months of life. It started him doing farm work as soon as he was born; the most healthful work known to mankind. Interested and amused him all along through life; diagnosed the pathology of 90 per cent of the tumors that affect it. A large percentage of the disease that affect it are surgical, thereby sustaining him in his professional career.

Dr. I. J. Newton (Monroe, La.): I know of no more important subject to bring forth a thorough discussion than the subject of tumors of the female breast. It is closely associated in importance with benign and malignant tumors of the uterus—they go hand in hand.

An extended experience in treating breast tumors as well as a careful review of the literature upon this subject, convinces me, and I am sure it is the experience of every surgeon in the house, that the early removal of every tumor of the breast is essential to the welfare of the patient.

In every woman over thirty years of age having a tumor of the breast, there could be an early removal of the tumor; and unless it is immediately convenient to obtain a pathological report, the radical operation should be performed. There is not one of us, even with limited experience, I should think, but who has seen malignant tumors of the breast in women under the age of thirty.

In every case where a woman presents herself with a tumor of the breast, she should be impressed and told of the large per cent of malignancy attending such tumors, and of its extreme danger and of the short time that a probable cure is available.

If only the tumor is removed, and no pathological report is obtained and there should be a reappearance of the tumor, it is practically too late to obtain a cure by subsequent operation—therefore the importance of an immediate or early pathological report, and if necessary a radical operation to follow. In the event that a pathological report cannot be had, I am sure no mistake can be made by the radical operation, though the tumor be benign. Under such circumstances, surgeons who have gone beyond the border line of conservation, and perform only the radical operation, have seen many failures follow the simple operation made when upon apparently benign tumors.

Now, let's discuss that radical operation; just a phase of it. It should be radical, not only should the breast be removed, but all the lymphatic glands, all fatty tissues, a clear and complete cleaning out the axilla, the fascia of the pectoralis major and minor should be removed, not necessarily to remove these muscles in toto, in fact sufficient of each muscle should be left to afford a good axillary cushion and thus avoid some of the untoward after results.

It has been well demonstrated, that until a very late period in these malignant tumors, does the muscles become involved. In apparently benign tumors, if not convenient to obtain an immediate pathological report, or if such examination can be obtained within a few days, I do not think you would endanger the woman's life by waiting for such report; however, if such report cannot be had within a short time, it would be better to perform the radical operation; pardon me for emphasizing, by repetition, this phase of the question. I think the essayist intended to thus advise.

Dr. S. J. Wolferman (Fort Smith): If you are operating where you can send a specimen right at the time of the operation to a pathologist, all is well. But, if you have to close the incision and send that specimen out for examination, it produces the usual bad results. I think the doctor has shown in his paper that the thing to do, unless you have a pathologist who can make the examination then and there, is to do the radical operation.

Dr. A. G. McGill (Little Rock): When one has to determine whether or not a piece of tumor removed from a breast is malignant or benign, it is not always an easy matter. Often it cannot be done while the patient lies on the operating table anesthetized. Of course, if one happens to get some part of the tumor that is malignant in the first sections cut with the freezing microtome he can get in his report immediately and let the operation proceed. That is not always possible. If the tumor was primarily malignant or an advanced malignant degeneration of a benign tumor, the diagnosis can be quickly

made and a radical operation advised. However, in cases of adenomata, fibromata, lipomata, etc. in early malignant degeneration, the negative report of the pathologist may be misleading. If such a growth shows any suspicion of malignancy, as proliferation of epithelial cells, a radical operation should be done. Otherwise the tumor should be enucleated and every part of it searched for malignant degeneration. This requires several days. The pathologist takes small bits of the tissue from many different parts of the growth, hardens them and cuts microscopic sections. Many mounts are made and if any part of the tumor is malignant, some of these slides will be positive. Such a search could not be made while the patient is on the operating table.

The adenoma should always be looked upon with suspicion as it is but one step to adeno-carcinoma.

The different varieties of sarcoma and carcinoma are easily diagnosed when they are advanced to the size of a hen's egg. In any case of doubt on the part of the pathologist in determining malignancy, the radical operation should be done.

Dr. Cooper (Essayist): A great deal more could be said about tumors of the breast. We naturally hesitate to do the mutilating operation on the full rounded breast of the healthy female, particularly so, if the woman is young, but when we remember how often the simple growths become malignant, it is our duty to inform our patients that removal is the only safe plan.

A recent experience will illustrate what I have tried to express in my paper: A young woman, aged 29, consulted me about a small tumor in her breast which had been present for over fifteen years. She had noticed it before she began to menstruate; it had not increased in size to any appreciable extent; it was free from pain and freely movable. She wanted it out for fear that it might become a cancer. I told her that I thought that she need not have any fears about the nature of the growth, as she had had it for so long the chances were very much in favor of a simple benign growth. At the operation the tumor seemed to be engrafted into a fibro-adenoma and it was thought best to remove the whole breast, which was done. Two competent pathologists found cancerous degeneration in the small growth of fifteen years duration.

“Every physician should feel it his duty to urge the incorporation in our milk standards of a maximum bacterial contamination, such as the standards suggested by the Commission on Milk Standards appointed by the New York Milk Committee. These resolutions have already the endorsement of the Section on Preventive Medicine and Public Health of the American Medical Association, the Conference on State and Provincial Boards of Health, the American Public Health Association and the American Veterinary Association. In such imposing company our legislators need not fear that a dangerous and radical experiment is being made by such a change in the law, but rather an urgent and highly desirable addition to measures looking to the conservation of the state's health.”—Providence Medical Journal.

CHAIRMAN'S ADDRESS TO THE SECTION ON DERMATOLOGY AND SYPHILOLOGY.*

By James H. Chestnutt, M. D.,
Hot Springs.

I thank the Society for the honor done me in selecting me as Chairman of this section. In conformity to custom, I shall give you a review of the progress of the last year or two in syphilis.

Before speaking of recent advances, it may be well to pause for a moment to dwell upon some of the phases of luetic treatment. Mercury in some form has been used for ages; iodide of potassium was added to our therapeutics in the first half of the last century. With its mode of action and its limitations understood, it still has an important place not in the cure of syphilis, but in the treatment of certain symptoms and in paving the way for mercury. Good results have always been secured by the use of mercury when properly used, and as a curative agent, it has long held first rank. Clinicians, however, had long been worried by the fact that there was no means of knowing when syphilis was cured; and hence they were handicapped in two ways: First, there was in many instances no method by which an early diagnosis of syphilis could be made; and, secondly, no index of the adequacy of treatment. The discovery of the *treponema pallida* and the development of the Wassermann reaction solved these difficulties.

The discovery of the spirochaeta was confirmed by all observers. In time, it was cultivated and its presence was demonstrated in every lesion of syphilis. This last demonstration proved that which clinicians had long known, namely, that mercury was indicated in every stage of syphilis and that iodide of potassium, while of great service in tertiary lues, could not solely be relied upon, the mercury being necessary to destroy the spirochaetes. Great as were the preceding discoveries, there was still room for progress, particularly in the treatment of the disease.

Clinicians have long been aware of the necessity for arsenic in the treatment of certain skin syphilides, in fact, this knowledge turned the attention of investigators to arsenic as a

drug which might prove as efficient as mercury in the treatment of syphilis. A number of compounds of arsenic were synthesized, among them atoxyl, soamin, and as a culmination salvarsan and neosalvarsan. It is not my purpose to enter into a discussion of the merits or demerits of 606. Suffice it to say that 606 has come to stay, and the sooner physicians recognize this, the better will be their results. To use 606 does not mean to discard the older remedies, but it does mean the placing in your hands of a new weapon, the use of which once learned, will guide you safely along many a rugged path. Opinion with the exception of Weechselman, is inclined to the use of both mercury and 606, and I predict that this will be the final outcome of the controversy.

For the past year or two, there stand out a few things which are of interest in the treatment of syphilis and in the role the disease plays in the causation of other diseases. It is to these that your attention is directed.

First, neurologists have long maintained that without syphilis, there would be no paresis. The past year, Noguchi and other investigators have not only proved the presence of spirochaetes in the brains of paretics, but in a number of instances have cultivated them by injecting an emulsion of brain tissue from patients dying of paresis into the testes of rabbits. Their investigations have shown that the spirochaetes are in portions of the brain inaccessible to ordinary treatment. The problem, there, is how to attack spirochaetes in the hidden recesses of the brain. Many methods have been suggested to render the cells lining the dura more pervious to complex molecules such as "606," but their success has not been marked. The study of this problem has led to what promises to be one of the most interesting discoveries of the year—the Swift-Ellis treatment of Spinal Syphilis.

The essential features of the treatment as originally described are summarized by Mapother and Beaton as follows:

"1. The intravenous injection of 300 c.c. normal saline containing 0.4 gram salvarsan neutralized with caustic soda. 2. One hour later the removal of 40 c.c. of blood, which is centrifugalized, and 12 c.c. of the serum obtained is diluted with 18 c.c. of normal saline, the mixture being then heated for half an hour at 56° C. 3. The intraspinal injection, after removal of an equivalent quantity of cerebrospinal fluid, of the 30 c.c. of this diluted serum prepared as above."

*Chairman's address to the Section on Dermatology and Syphilology of the Thirty-eighth Annual Session of the Arkansas Medical Society, held at El Dorado, May 19-22, 1914.

This line of treatment was devised because Swift found that ordinary solutions of salvarsan could not be injected into the spinal canal. Witness the disastrous effects of the deviation from Swift's technique by the physicians in Los Angeles. It must be said, however, that in France some physicians have been injecting intraspinaly 3 or 4 minims of an isotonic solution of neosalvarsan with good results, it is claimed.

The effect of Swift's treatment has in some instances of cerebrospinal syphilis been remarkable. The cell count has returned to normal from 200 to 400 cells per c.; the Wassermann of the spinal fluid has become negative and the amount of protein has greatly diminished. In addition, frequently there is a decided improvement in the objective and subjective symptoms of the disease. The result, however, of this treatment in paresis has not been encouraging. Mapother and Beaton in a preliminary report in the *British Lancet* of April 18, 1914, on the "Intraspinal Treatment of Paresis," do not believe the improvement to be greater under Swift's treatment than occurs in the ordinary remissions of the disease.

Whilst arsenic is attracting the attention of the whole world in the therapy of syphilis, its companion antimony is giving results in the treatment of certain protozoan diseases, which suggests at least that some of its compounds will be of value in luetic treatment.

It would seem that the above progress would suffice for one year, but there is one other thing which equals in importance all that has previously been said, and that is the address of Paul Ehrlich before the International Medical Congress last summer. The title reads: "Address in Pathology on Chemotherapeutics; Scientific Principles; Methods and Results," and is published in the *British Lancet* August 16, 1913. Those who have not read this enlightened and illuminating address have for themselves a treat in store. Syphilis is not discussed in particular, but he gives a history of the development of arsenic and chemotherapeutics, in such an entertaining way that it reads like a Persian fairy tale. Space prevents me from taking up this paper in any detail, but I cannot refrain from mentioning this one fact: In Surinam there was a hospital having 300 patients with yaws. All were given a full dose of salvarsan. The result was astounding; all but two were cured.

Much I believe has been accomplished this year in the domain of syphilis. Let us hope the succeeding years will do as much.

THE STORY OF A VESICO-VAGINAL FISTULA.*

By Anderson Watkins, M. D.,
Little Rock.

This is not a paper dealing with the statistics of vesico-vaginal fistula. Everyone knows of the usual methods of production and of its undesirability, whether it be the result of labor or a post-operative sequela. Nor do I intend to go into the operative treatment as its general principles are well known, the most important indication being a thorough separation of the bladder and vagina with separate sutures for each after denudation of the cicatrix.

I was unfortunate enough to create a post-operative fistula between the vagina and bladder during a vaginal hysterectomy. As is usual in such cases, the fistula was high up in the vaginal vault and was attended with all of the after distressing features which are so humiliating alike to patient and surgeon. I realized, of course, that I had entered the bladder when separating that viscus from the uterus, and promptly repaired the bladder wound, leaving a catheter in the urethra for some days following the operation. During the third night of convalescence the catheter became plugged and the nurse instead of investigating, gave the patient morphia; of course, when the bladder distension reached a certain pressure the sutures gave way. This occurred in January, 1913.

In the following spring I attempted a repair, going in through the vagina and separating it from the bladder, denuding the scar and sewing it separately. The retention catheter was left in the urethra as before, exciting a considerable urethral irritation and eventually having to be removed. We were forced to be content with frequent catheterizations. We had here a second failure, the sutures giving way on the seventh day.

Further operative procedures were postponed for a while, but in October of the same year an acute appendix necessitated removal. In February, 1914, we again attempt-

*Read by title in the Section on Surgery of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

ed closure of the fistula. In planning the last operation I realized two important facts: first, the absolute intolerancy of the patient's urethra; second, that I should have to effect a wide separation of the bladder and vagina. In looking up the literature, I noticed that Legeau had gone into the abdomen in such a case and had done a transvesical and transperitoneal section splitting the bladder down to the vagina and suturing each with an interposed layer of peritoneum between them. His result was good.

Parham of New Orleans had a description of his technic which was an accentuation of the cardinal principle of thorough separation of bladder and vagina.

Preliminary to my last attempt the bladder was irrigated for several days with a weak boric acid solution to subdue a mild cystitis which existed. Knowing from former experience the impracticability of using the urethra as a drainage, my first step (under gas anesthesia) was a suprapubic cystotomy for drainage. After accomplishing this stage with the tube in the wound, I then attacked the fistula through the vagina by means of longitudinal and transverse incisions through the vagina, intersecting at the fistula.

The vagina was dissected from the fistula and bladder for about an inch and a half in all directions; in other words, the bladder was exposed for a space about three inches square. After the cicatrix was cut away the bladder was sutured with two layers of No. 0 chromic gut. It then occurred to me that peritoneum seals a wound very quickly, so by entering the peritoneal cavity at the vaginal vault, I secured an ample layer of peritoneum which was sewn to the bladder covering the sutured fistula. The vaginal incision was sewn with No. 1 chromic (10-day) gut.

Convalescence was uninterrupted, and when the cystotomy wound was healed the patient began to urinate naturally. Repeated examinations since the operation have failed to show any urine in the vagina and the fistula has apparently, and, I am convinced, entirely healed. There is yet some incontinence due to an irritable bladder, and a weak sphincter, but this condition is improving.

The points of interest to me in this case are:

First: The creation of the fistula after I had become fairly expert in the performance of a vaginal hysterectomy.

Second: The impossibility of using the urethra for drainage following the attempts at

repair; thus necessitating the suprapubic drainage.

Third: The interposition of peritoneum between the bladder and vagina. This, I believe, was a very important factor in the permanent closure of the fistula, as a serous membrane, when irritated, quickly throws out a fibrinous exudate which rapidly organizes. I would advocate strongly the use of the peritoneum in such cases when practicable.

CHAIRMAN'S ADDRESS, SECTION ON PRACTICE OF MEDICINE.*

By C. J. March, M. D.,
Fordyce.

"Peace hath her victories no less renowned than war."

When in 1675 Lenuwenhoek, son of a brewer, put a drop of water under his crude microscope and found it swarming with animalculae, as he termed them, he could have had no adequate idea of the new world that he had opened to science. Nothing of much practical importance to medical science or practice resulted from microscopic research until about 1861 when Pasteur began his epoch-making work in demonstrating the bacterial origin of disease in both plants and animals.

Pasteur having opened the ways, was followed by Lister who applied his principles to surgery by Koch, and others, who demonstrated the bacterial origin of tuberculosis and other hitherto uncontrollable scourges of humanity. One discovery followed another until finally the serum vaccine methods of treating such hitherto unmanageable epidemics were devised and are now in general and successful use.

In view of what has been accomplished by vaccination in smallpox and typhoid fever and serum immunization in diphtheria, we are encouraged to hope that in the near future the causes of other diseases not yet explained may be laid bare by similar research.

While we have demonstrated the causes of many epidemic diseases, and worked out rational means both for their prevention and treatment, there is one epidemic disease now prevalent in our country, of whose cause we know practically nothing, and whose treatment is entirely empirical. I refer to pellagra, which disease, unknown in this section

*Read in the Section on Practice of Medicine of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

until about 1908, is now widely prevalent and very fatal. A great statesman once remarked that "it is a condition and not a theory that confronts us." In the case of pellagra we have a condition and a bad one, and a variety of theories confronting us.

In this connection I wish to call attention to the Pellagra Clinic that is to be held in this section under the auspices of and by the members of The Arkansas Pellagra Commission. We are to have some papers on the subject, and a discussion following, the discussion to be opened by Dr. George Dock.

CONSERVATION VERSUS STIMULATION IN THE TREATMENT OF SHOCK.*

By Chas. S. Holt, M. D.,
Fort Smith.

Our president has most graciously bid you welcome—I therefore purposely omit any further traditional phrases of customary greeting. We, your committee, have endeavored to give you a program well worth your time and trip.

The field of major surgery is extensive. In arranging this program we have faithfully tried to cover the salient progressive features of the most recent surgical work. To do this, we have obtained papers by well known and prominent men, not only from our own State, but from afar, who will give to you the best they have in modern surgery.

As surgeons we are all deeply interested in the entire field of surgery—as students and as workers in the advancement of our art, each and every one of us has some preference, some choice, or some hobby, if you please, in which we take a special interest.

Some of us prefer the pelvis, some the chest, others the bones, and so on over the entire human system, and each of you would be most interested in a paper on your own particular field.

So in considering a subject for a short paper to *open* this meeting, I have tried to find one which as surgeons, regardless of your special field, you meet constantly. One which is common, yet hard to definitely diagnose, even harder to successfully combat, and I believe one which is much abused. I refer to a phase of *shock phenomenon*.

Recently the literature has contained many excellent articles upon this subject, its causes, its diagnosis and its treatment, standing foremost amongst all, being the original work of our honored guest, Dr. George W. Crile, all of which tend to show what shock really is, the pathology it produces in the human system and the methods of combating the same. But the phase of shock phenomenon which I wish to place before you is one, which as general surgeons, you frequently meet and in stringent and urgent time of action.

Who of you has not had this experience? You are suddenly called to the bedside and are told that the patient before you has been struck by an auto, an engine, or has received a crushing injury about the chest or abdomen. You take his pulse and find it weak, fast and thready. The skin is cold, clammy, anemic; cold beads of perspiration are on his forehead; his respirations are labored, he is dazed and complains of severe pains in his chest, abdomen, or both. You immediately ask yourself, *has* this man internal injuries with internal hemorrhage, which by immediate operation I can aid, or is he suffering only from severe primary shock due to direct trauma to vital organs; or, in other words, if I operate, will I relieve the condition or will I increase the shock which would otherwise yield to treatment without operative interference; or, if I stimulate and do not operate, will I increase the already existing hemorrhage and leakage? Please do not misunderstand me. Well do I realize that abdominal hemorrhage gives dullness in the flanks and sometimes decrease in liver dullness and the other well known signs, as also does visceral rupture; and that internal chest trauma have their signs, but none of these are present at this time. They come later, and you are there at the bedside and must act now. How will you make your differential diagnosis and what will determine your method of treatment?

It is not my purpose to review the numerous shock theories; sufficient it is to recall to you that it has been the subject of investigation since 1795. Mansell Moullin, in the International Encyclopedia of Surgery, London, 1882, gives a most excellent historical review of this subject up to that time.

As early as 1864, and later in 1870, such men as Keen, Mitchell and Morehouse¹ also Fischer² believed shock to be a vasomotor exhaustion, then Leyden³ claimed it a reflex inhibition of the centers of the cord. Later Boice⁴ claimed it cardiac exhaustion.

*Chairmans' Address read in the Section on Surgery of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

Kinnomen⁵ believed it a disrelation between the thermogenic and thermolytic centers and so on without end. Then Dr. Crile⁶ in 1899 again showed with some very reliable work that vasomotor exhaustion was the leading factor, followed early in 1909 by Seelig and Lyon⁷ who claimed they had shown that the vasomotor centers were not paralyzed and that the peripheral vessels were contracted, and that all vasomotor centers *could* not be paralyzed. In some following work in 1910⁸ these same men showed that even in profound shock with an extremely low blood pressure the vasomotor centers still respond to the usual stimulation. Following this in 1913, was the supreme effort when Dr. Crile⁹ conclusively showed that shock was due to an "over-stimulation and consequent exhaustion of the vital centers shown definitely in the chromatic material of the brain cells."

Further work and more recent results have been lately most excellently summed up by Dr. F. W. Parham¹⁰ of New Orleans, and even still more recently by Dr. Randal Short¹¹ of Bristol Royal Infirmary. No one now disputes the well known over-stimulation and consequent exhaustion theory of Dr. Crile.

And herein lies the salvation of our patient. He is injured, and in shock either primary or secondary, and while waiting for an accurate differential diagnosis, we *cannot*, in the light of this new work, stimulate. He is exhausted due to over-stimulation. Does he demand *further* stimulation, does he demand digitalin, camphorated oil, caffeine, strophanthin, or the like? Is there *any* indication for stimulation? Would you whip up a horse who was just ready to fall down and die?

Then, as shock is an over-stimulation followed by exhaustion and your heart is flagging due to this over-stimulation, *why* stimulate medically?

Your treatment should be conservation of forces and in this conservation lies your justice to your patient.

Previously you worried immediately because of your inability to differentiate and fear of stimulating a bleeding point. Now is it not evident that stimulation is not in *any way* indicated?

Your immediate treatment, then, is to conserve the body forces, keeping your patient under the strictest surveillance.

Treat him for primary shock and with the first signs of visceral injury be ready yourself, and try and have your patient ready

to operate. Make your patient comfortable so as to use no brain energy for comfort. Place the head slightly lower than the remainder of the body, so that the exhausted brain cells will get the most possible blood and hence the most nourishment and rebuilding material. Apply only sufficient external heat to raise the body temperature to normal, an excess of heat causing extreme cutaneous dilatation and draws the blood away from those vital centers which you are trying to strengthen.

Your patient must be at rest, holding back your morphin and giving it only when absolutely necessary, remembering that when given it masks the early abdominal signs, the keynote of an early differential diagnosis.

Now as to drug treatment. We admit that the blood pressure is low, not a cause of shock, but a result. Adrenalin has long been used, though its effect is only temporary; pituitrin and thyroid extract are advocated. Nothing so well does the work and in so logical a manner as does sodium bicarbonate as used by Seelig. Sodium chloride when given in large amounts overloads the blood stream and causes the heart to do extra work, but sodium bicarbonate in 50 cc. doses given intravenously does not change the rate of the heart beat at all. It does increase the blood pressure and the amplitude of each heart beat, not by further working the heart, but by its action on the blood vessels and by conserving the force of each heart beat and getting the maximum work out of the individual beat.

Accepting this view of shock certainly berefts of much of our previous routine treatment, but I ask you, is it not for the patient's good? How simple it was on the "vasomotor exhaustion theory" to fill the vessels full of salt solution and pump the patient full of pituitrin, digitalin, strophanthin and strychnin, and with the "exhaustion adrenal secretion theory" to give adrenalin, and in the "acapnia theory" to give carbon dioxide, but what were the results? Sad, I assure you, and the theories abandoned, not because the theories themselves were not sustained at that time, but because the treatment based on them was a failure.

And now may I leave with you this one idea. That accepting shock as an "over-stimulation and consequent exhaustion of the vital centers, demonstrable in the chromatic material of the brain cells," then our treatment, which has been based upon *stimulation* is *radically* and *entirely* wrong. It has hindered us

in our diagnosis in cases similar to the hypothetical case cited. We should not *stimulate*. The keynote of our treatment should be *conservation*, not *stimulation*. It is only too true that the pharmacologists and physiologists have little to offer us along this line and so, if you insist upon stimulation, let it be to *stimulate* these investigators to give to the profession preparations which are conservators of vital forces.

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ICE AND ICE WATER.

Nothing is much more harmful or productive of suffering after an anesthetic than ice or ice water. It is a well known fact that in the Arctic regions, the eating of snow or ice in lieu of drinking water is rapidly destructive. Ice after anaesthetic not only exaggerates shock, but excites vomiting and produces a most insatiable thirst. Its use is inexcusable.—Pacific Medical Journal.

TO AVOID BREAKING AN ARM.

Many a broken arm and worse would have happened had not the following advice of George A. Hows, the founder of the famous Panhard oil business, been followed: When cranking, place the thumb against the index finger and take the handle between the four fingers and the palm of the hand. The hand thus opens readily should a back-kick occur. Always crank up; never down.—Motor Print.

VERACOLATE, Marcy and Co.—Veracolate is a proprietary said to consist of the salts of the bile acids, sodium glycocholate and sodium taurocholate, with cascara and phenolphthalein. While bile salts are said to increase the secretion of bile, it is doubtful whether this increase in the secretion of bile is of value in the treatment of gall-

bladder affections. There is no occasion for the use of bile salts combined with fixed quantities of cathartics, which should be added only when they are needed. The advertising claims for Veracolate show a tendency to extravagant statements (Jour. A. M. A., Aug. 1, 1914, p. 420).

SHORTAGE OF DRUGS.—In view of the possible drug shortage, physicians should bear in mind that many proprietary foreign preparations are made and sold in the United States under their descriptive names, thus dionin as ethyl morphin hydrochlorid, urotropin as hexamethylenamin and diuretin as theobromin sodium salicylate (Jour. A. M. A., Aug. 22, 1914, p. 692).

Book Reviews.

THE INTERVERTEBRAL FORAMEN.—An atlas and histological description of the intervertebral foramen and its adjacent parts, by Harold Swanberg, member of the American Association for the Advancement of Science, with an introductory note by Harris E. Santee, A. M., Ph. D., M. D. Illustrated by sixteen beautiful full-page plates from the highest price half-tone engravings, printed on the most expensive engraver's proving paper. None of these plates have ever before appeared in print, having been especially prepared for this work. The text is printed on the best book paper and contains over 100 pages, size 6 by 9, and is elegantly bound in silk cloth. A splendid product of the printer's art. Price, \$3.00, post-paid to any address. Chicago Scientific Publishing Co., southwest corner Grace and Osgood Streets, Chicago, Ill.

This book presents an accurate and scientific description of an intervertebral foramen and its adjacent parts, with special reference to the relations of the nervous structures.

Dr. Harris E. Santee, in his introductory note, says: "A study of this work will help to determine whether compression of the nerves at this point is likely to occur; and whether, therefore, there is substantial ground for the doctrine that such compression is the immediate cause of all or of a considerable number of pathologic conditions."

ANATOMY AND PHYSIOLOGY OF THE EYE AND ITS APPENDAGES.—By John Welsh Croskey, M. D., ophthalmic surgeon to the Philadelphia General Hospital, Philadelphia, Pa. Published by Smith-Edwards Company, 129 North Twelfth Street, Philadelphia, Pa.

This pamphlet containing two most excellent illustrations is the outgrowth of the instruction given to students and nurses at the Philadelphia General Hospital during the past ten years.

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Anonymous communications will not appear in the col-
umns of this Journal, no matter how meritorious they
may be.

Editorials.

THE WORK OF THE STATE BOARD OF HEALTH.

It is most gratifying to the profession and the public alike to note the excellent work being done by the State Board of Health in their efforts to prevent malaria, as well as the efficient work done during the year with cerebrospinal meningitis, smallpox, typhoid and other diseases in which preventive measures are essential.

In the fight against malaria the Board has the co-operation of the Government Health Officers and together they are doing a wonderful work all over the state. Dr. F. B. Young has been indefatigable in his duties as State Health Officer and the thanks of the whole people are due him. In a letter to Governor Hays, Dr. Young calls attention to the importance and magnitude of the malaria crusade and the valuable assistance rendered by Drs. Taylor and Malloy acting under the orders of U. S. Surgeon R. H. von Ezdorf. Dr. Young asks the co-operation of the state, county and municipal authorities and the public generally and certainly the Health Officer and the Health Board should have the cordial and earnest support of every citizen of the state.

The value of this work cannot be measured. The public health is always of paramount importance. Looking at the work from the more sordid commercial aspect—and there are people whom you cannot interest from any other viewpoint—it is of untold value. It cannot be estimated how many thousands of prospective settlers have been frightened away from making their homes in this state because of the prevalence of malaria in some sections. The first question the prospective settler asks is about the health conditions. If that cannot be answered satisfactorily, no man will take his family there no matter what alluring prospects are held out. If the real estate man or the Railroad Immigration Agent can say "Here is a state without malaria," he will have no trouble in getting business. If the business man can be brought to realize the value of the Board's work just from this view-point he will hasten to give his support to it—and his money, too.

There is another matter to be considered. The state legislature has not been generous with us in the past. We are not referring to the appropriation made by the last legislature—on the contrary, what was given was appreciated; but former legislatures were not alive to the importance of the work. The 1911 session created a state board but did not provide means even for office expenses. Arkansas has been behind her sister states in public health matters only because of the failure of successive legislatures to provide ways and means.

The work of the board in the past year should convince the legislature at the coming session of the supreme value of its work and the absolute necessity of giving it adequate support.

THE SOUTHERN MEDICAL CONVEN- TION.

At the May meeting of the Arkansas Medical Society, Dr. Snodgrass offered a resolution, which was adopted, that the society invite the Southern Medical Association to hold its 1915 convention in Little Rock. The convention this year will be held at Richmond, Va., November 9-12, inclusive, and, if Little Rock is to get the convention, the work will have to be done then. It is a big thing, well worth going after and it can be got by the right people—and we have the co-operation of the right people. At this year's meeting one thousand members are expected and with the expectations of the membership next year

reaching five thousand there are likely to be over two thousand members and visitors at the 1915 meeting.

The Little Rock Board of Trade and Chamber of Commerce are pledged to use their influence to help us secure the meeting for Little Rock, and when we remember the work of Mr. Geo. R. Brown in getting the Confederate Re-union in 1911 and the assistance rendered by the Chamber of Commerce, there is little fear of failure.

The Southern Medical Association is a power, not only in numbers, but in influence. In its membership are some of the great men in the profession—physicians of national fame. To be instrumental in bringing such a convention to Arkansas means a great deal to the profession throughout the whole state. It will give us prestige. The program that will be rendered, the publicity that will be given the proceedings in the local press and the Associated Press, going to all the papers all over the country, will help us as a society and as individuals and it will be a great advertisement for Little Rock and the entire state.

We can help the cause by making a good showing at the convention at Richmond. We cannot expect the commercial organizations to be enthused over the proposition unless we show enthusiasm. Special Pullman cars have already been arranged for and it only remains to have as large a delegation as possible in attendance.

THE COMMITTEES.

Too often in all organizations, committees are named more as a matter of honor than of fitness. It is therefore a pleasure to note the peculiarly appropriate selections made by President Cooper in naming the committees for the ensuing year for the Arkansas Medical Society. Dr. Cooper's relations with organized medicine for the last twenty years and his wide acquaintance among members of the profession, and knowledge of their attainments, has been of great service to him in selecting the men for each committee, who are best qualified for the work required of them.

This year the work of the legislative committee is of utmost importance. Without good committees very little can be accomplished. The success of the annual meeting depends on them. The program itself rests with them and the success of the meeting

depends on an attractive program being provided. With such committees as Dr. Cooper has selected—men not only qualified but who will work—together with the co-operation of the membership, splendid results seem assured for our next annual meeting.

Following are the committees:

Committee on Scientific Program—William R. Bathurst, Chairman, Little Rock; Robert Caldwell, Little Rock; C. P. Meriwether, Little Rock (ex officio).

Committee on Legislation—Frank B. Young, Chairman, Little Rock; C. W. Garrison, Little Rock; W. F. Smith, Little Rock; Horace E. Ruff, Heber Springs; John W. Meek, Camden; St. Cloud Cooper, Fort Smith, (ex officio); C. P. Meriwether, Little Rock (ex officio).

Committee, Board of Visitors to the Medical Department, University of Arkansas—R. C. Dorr, Chairman, Batesville; L. J. Kosminsky, Texarkana; R. A. Hilton, El Dorado.

Committee on Necrology—H. H. Niehuss, Chairman, El Dorado; J. T. Clegg, Siloam Springs; R. H. T. Mann, Texarkana.

Committee on Trained Nurses—W. A. Snodgrass, Chairman, Little Rock; Leonard R. Ellis, Hot Springs; Earle H. Hunt, Clarksville.

Committee on Health and Public Instruction—T. B. Bradford, Chairman, Cotton Plant; M. S. Dibrell, Van Buren; J. H. Southard, Fort Smith.

Committee on Sanitation and Public Hygiene—Leonidas Kirby, Chairman, Harrison; Edwin F. Ellis, Fayetteville; Thomas Douglass, Ozark.

Committee on Memorial Tablet in Memory of Dr. John S. Shibley—L. P. Gibson, Chairman, Little Rock; J. B. Eberle, Fort Smith; A. E. Hardin, Fort Smith; Frank Vinsonhaler, Little Rock; M. D. Ogden, Little Rock.

MEDICAL EDUCATION STATISTICS FOR 1914.

The Journal A. M. A., August 22, 1914, the annual Educational Number, contains statistics of medical colleges, students and graduates for the year ending June 30, 1914. There were 16,502 students studying medicine this year, 513 less than in 1913. These are divided into 15,438 in the non-sectarian col-

leges, 794 in the homeopathic colleges, and 270 in the eclectic colleges.

There were 3,594 medical graduates this year, 387 less than in 1913, and 889 less than were graduated in 1912. The non-sectarian colleges had 3,370; the homeopathic had 154 and the eclectics had 70. This is the lowest number of graduates since 1890.

There are six less colleges than in 1913, the total now being 101, consisting of 87 non-sectarian, 10 homeopathic and 4 eclectic colleges.

Since 1904, 85 medical schools have been closed, 49 of which were merged into other medical schools and 35 became extinct. During the same time twenty-four new colleges were organized, making a net reduction of 61 colleges. This reduction in the number of medical schools is not restricting the opportunities of students to study medicine but is insuring them a better training. The large over-supply of medical schools in this country, is giving way to a more normal supply of better equipped colleges. Of the 85 colleges which closed, 62 had been rated in Classes B and C by the Council of Medical Education of the American Medical Association. A large majority of those closed, therefore, were inferior colleges.

The marked reductions in the numbers of medical colleges, students and graduates is the reaction which would naturally follow the stupendous over-supply which this country possessed ten years ago. There would be no possibility of a scarcity of physicians in this country for years to come, even though the number of medical schools was again reduced by one-half.

Women students constituted 3.8 per cent of all students, and of all graduates, 3.4 per cent were women. Statistics show that college terms are being gradually lengthened. In 1901, 100 colleges had annual sessions of only 23 to 28 weeks. Now only two colleges have such short sessions and about ninety-five per cent have sessions of from 31 to 36 weeks. In 1904 only 42 per cent of the colleges had sessions of 31 weeks or more.

Tabulated statistics of college fees, including matriculation, tuition and laboratory fees, show that 14 colleges charge \$100 or less for each student per year, 66 colleges charge between \$100 and \$175 per year, and 21 charge \$175 or more. Among the colleges charging fees of less than \$100 are several strong state university medical colleges. On the other hand 11 colleges listed by the Council in Class

C charge fees from \$100 to \$175 per year for each student. Considering the fact that diplomas from Class C colleges are reported as not recognized as a qualification for a license by thirty-one state licensing boards it would be poor economy to attend one of these colleges because of the slight difference in fees charged. In some cases it is a fact that in the same time and for even less money the student could attend one of the best equipped colleges, the diplomas of which are recognized in all states. Financial reports from 65 acceptable medical schools show an average actual expenditure for each student for one year of \$435 while each student paid on the average in fees only \$122. This shows that to furnish an adequate training medical schools must have more income than is derived from students' fees, in the form of either state aid or private endowment.

Of the 101 existing colleges, 84, or over 83 per cent now require one or more years' of work in a college of liberal arts for admission, and several others have announced the higher requirements to take effect in 1915. Of this number, 34 require for admission two or more years of collegiate work. That marked progress in this respect has been made, is shown by the fact that in 1904 only 4 colleges (less than three per cent) required any collegiate work for admission. Twenty state licensing boards have established the requirement for preliminary education of one or two years' work in a college of liberal arts, thereby supporting the better class of colleges which have adopted that standard. Seven of these require two years of collegiate work, the equivalent to that required by university medical schools for the six year combined course for the B. S. and M. D. degrees.

Of the 3,594 medical graduates in 1914, 807 or 22.5 per cent were also graduates of colleges of liberal arts as compared with 19 per cent last year. This shows a decided improvement in the qualifications of those who are to practice medicine.

In recent years medical colleges have been greatly improved by the securing of endowments, new buildings, better equipped laboratories, better dispensary and hospital facilities, and—most important—larger numbers of expert, full-time teachers. Improvements have been particularly rapid since the creation by the American Medical Association of the Council on Medical Education, in 1904.

Personals and News Items.

Dr. W. T. Gabbert has moved from West Fork to Fayetteville.

Dr. Loyd Thompson of Little Rock has located in Hot Springs.

Dr. W. S. May of Little Rock has returned from New York.

Dr. B. Brewster of Rector has moved to McCrory.

Dr. F. Vinsonhaler has returned from Europe.

Dr. Anderson Watkins has returned from Denver.

Dr. H. N. Street of Little Rock has moved to Lonoke.

Dr. Jno. R. Cunning of Lonoke has moved to Argenta.

Dr. A. W. Strauss of New Orleans has moved to Little Rock.

Dr. and Mrs. J. B. Wharton of El Dorado are visiting in Little Rock.

Dr. J. B. Britt of Russellville has returned, after visiting in Little Rock.

Dr. T. E. Hodges and family of Little Rock are visiting in Rogers.

Dr. E. N. Allen of Little Rock visited in McAlester, Okla., last month.

Dr. and Mrs. J. H. Buckley of Fort Smith have returned from Europe.

Dr. John D. Jordan of Eureka Springs has moved to Antlers, Okla.

Dr. S. S. Stewart of St. Louis visited in Little Rock last month.

Dr. Wm. L. Moore of Broken Bow, Okla., visited in Little Rock last month.

Dr. J. E. Neal of Alberta, La., is visiting in Little Rock.

Dr. and Mrs. W. E. Cox of Hot Springs are home from an extended European tour.

Dr. Wm. F. Manglesdorf, Little Rock, has been appointed Pathologist of the Arkansas Pellagra Commission.

The money we secure from advertisers helps to produce a larger and better Medical Journal. "Favor those that favor us."

The membership of the Arkansas Medical Society is steadily growing. What about your county? Do you show a comfortable increase over last year?

Dr. W. L. Kitchens of Stamps has moved to Little Rock and announces that his practice will be limited to diseases of children.

The Medical Department of the University of Arkansas announce a Department of Pharmacy to begin Monday, September 14th, 1914.

The Journal invites correspondence with the profession of the state in regard to county medical meetings and items of news of interest to physicians.

Dr. A. B. Bishop of Ashdown, Democratic nominee for member of the House of Representatives from Little River County, is a candidate for Speaker of the next session.

The first of October most of the county medical societies will have resumed their schedule of meetings. Get busy and help make this a banner year in your community.

The Surgery Publishing Company of Chicago, publishers of Surgery, Gynecology and Obstetrics with the International Abstract of Surgery announce their removal to 30 North Michigan Avenue, Chicago.

A great deal of good might come, we believe, if members of our society would visit neighboring county societies at times. Each society has its own problems to meet and many of the problems are common to all societies. It would stimulate us all to know that we are to be inspected by our neighbors occasionally.

The Medical Department of the University of Arkansas and the State Medical Board announce that all students beginning the study of medicine in 1915-16 will be required to present at least one year of collegiate work or enter on a five-year course including a preliminary year of college physics, chemistry and biology.

The Clinical Congress of Surgeons of North America which met at London, Eng., elected the following officers: President, Dr. Charles H. Mayo, Rochester, Minn.; first vice president, Dr. H. A. Bruce, Toronto; second vice president, Dr. Robert L. Dickinson, Brooklyn, N. Y.; secretary, Dr. Franklin H. Martin, Chicago; treasurer, Dr. Allen B. Kanavel, Chicago; general manager, A. D. Ballou, Chicago.

A new kind of fellowship has been created in the A. M. A., to be known as "Affiliated Fellows." This will apply to all fellows who have been in good standing fifteen years or

more, are over sixty-five years of age, and by infirmity can not meet the payment of annual dues. They will enjoy all the privileges of fellowship except receiving the Journal. All members who can qualify should do so at once.

Physicians visiting in Little Rock the past month were: L. R. Ellis, Hot Springs; Geo. S. Brown, Conway; J. W. Seales, Pine Bluff; C. Zena Holt, Kensett; T. G. Porter, Hazen; Wm. E. Ballenger, Plainview; C. H. Dickerson, Conway; Irvin Sheppard, Belfast; E. F. Brewster, Augusta; G. D. Huddleston, Lamar; L. T. Slayden, Tuckerman; W. S. Baskerville and A. R. Hederick, Booneville; W. H. Abington, Beebe; James Parker, De Vall's Bluff.

MEETING OF ALIENIST AND NEUROLOGIST.

The proceedings of the Third Annual Meeting of Alienists and Neurologists of the United States held under the auspices of the Chicago Medical Society, July 13-17, 1914, will be published in one volume by the Illinois State Medical Journal. It will be in double column, the type and size of page the same as the Journal, and will comprise from four to six hundred pages. This book will contain the papers read and their discussions, together with resolutions adopted. The subjects covered are, Acquired Insanity, Epilepsy, Mental Defectives, Alcoholism, Abderhalden Test, Syphilis, etc.

The subjects of special interest are,

First: The Abderhalden Test, (especially in dementia precox) which embraces the technic for the preparation of the substrates, mixing of materials in the test tubes, and the interpretation of the reaction. This will comprise one of the most complete Symposiums on the Abderhalden Test, so far, printed in this country.

Second: Syphilis. The diagnosis of early syphilis by the dark field illuminator. The technic for obtaining and mounting the specimens for the dark field examination. The technic for staining specimens obtained from local lesions and mucous patches, and the method for preparing and staining tissues for sections, for microscopical examination.

The Wasserman Test: The technic for preparing materials, the method for mixing the same in test tubes, and interpretation of reaction.

Third: The treatment of early and late syphilis is up to date, and embraces the technic for mixing and the method of administer-

ing intravenously salvarsan and neosalvarsan, also the technic and method for intra-spinal administration of neosalvarsan and neosalvarsanized serum in locomotor ataxia and paresis.

The proceedings will be published and ready for distribution by October or November, 1914. As only a limited number is left unsubscribed for, those wishing the publication will please send their subscription at once, as there will not be a second edition. The price of book is \$2.00. Send subscription to the Editor of the Illinois State Medical Journal, Dr. Clyde D. Pence, 3338 Ogden Ave., Chicago, Ill.

EXAMINATION OF CANDIDATES FOR ASSISTANT SURGEON.

Treasury Department, United States Public Health Service, Washington, Aug. 25, 1914.

Boards of commissioned medical officers will be convened to meet at the Bureau of Public Health Service, 3 B St., SE., Washington, D. C., and at the Marine Hospitals of Chicago, Ill., St. Louis, Mo., and New Orleans, La., on Monday, October 19, 1914, at 10 o'clock a. m., for the purpose of examining candidates for admission to the grade of assistant surgeon in the Public Health Service, when applications for examinations at these stations are received in the Bureau.

Candidates must be between 23 and 32 years of age, graduates of a reputable medical college, and must furnish testimonials from two responsible persons as to their professional and moral character. Service in hospitals for the insane or experience in the detection of mental diseases will be considered and credit given in the examination. Candidates must have had one year's hospital experience or two years' professional work.

After four years' service, assistant surgeons are entitled to examination for promotion to the grade of passed assistant surgeon.

Assistant surgeons receive \$2,000, passed assistant surgeons \$2,400, surgeons \$3,000, senior surgeons \$3,500, and assistant surgeon generals \$4,000 a year. When quarters are not provided, commutation at the rate of \$30, \$40 and \$50 a month, according to the grade, is allowed.

All grades receive longevity pay, 10 per cent in addition to the regular salary for every five years up to 40 per cent after twenty years' service.

The tenure of office is permanent. Officers traveling under orders are allowed actual expenses.

For invitation to appear before the board of examiners, address "Surgeon General, Public Health Service, Washington, D. C."

SPECIAL ANESTHESIA SUPPLEMENT.

Recent years have been marked by some important contributions to the theory and, especially to the practice of surgical anesthesia, but there has lacked what is now quite needed for the further scientific development of this alongside the other departments of surgery—a journalistic medium and editorial mouthpiece.

The American Journal of Surgery will be expanded to meet this need. Beginning with the October issue and quarterly thereafter, this journal will publish a 32-page supplement devoted exclusively to anesthesia and analgesia.

This supplement will be a complete journal within a journal containing editorials, contributed articles and communications, abstracts, transactions of societies and book reviews.

The supplement has been adopted as the official organ of the American Association of Anesthetists and the Scottish Society of Anesthetists and it will also publish the transactions of other like societies.

The editor of this publication will be Dr. F. Hoeffler McMechan of Cincinnati, one of the founders of the American Association of Anesthetists and a charter member of the New York Society of Anesthetists.

He will be assisted by a staff of well known specialists in anesthesia, among whom we would mention:

Dr. James T. Gwathmey.....New York
Dr. Willis D. Gatch.....Indianapolis, Ind.
Dr. William Harper De Ford.....Des Moines, Ia.
Dr. Charles K. Teter.....Cleveland, Ohio.
Dr. E. I. McKeelson.....Toledo, Ohio.
Dr. Isabella C. Herb.....Chicago, Ill.
and Yandel Henderson of Yale University.

FOR SALE—One Wantz X-ray Coil, manufactured by the Victor Electric Company, one Western Coil, 16-inch, manufactured by the Schiedel-Western Electric Company. Both machines suitable for therapeutic and heavy radiographic work. In perfect condition, and at a reasonable price. Address, Dr. A. M. Zell, Bankers Trust Building, Little Rock, Ark. (Advertisement.)

A TIMELY QUESTION.

What are you going to do with your drug and alcohol habitues? Professional opinion has advanced to the position of regarding these addictions as a disease which is amenable to treatment. Sanitarium care is necessary to the successful handling of such patients, but with the aids afforded by a well-equipped institution, the results of treatment are very satisfactory.

At the Pettey & Wallace Sanitarium, Memphis, Tenn., the most approved methods are employed and the work is carried out under the personal supervision of Dr. Pettey, who originated and published to the profession the now generally accepted method of treatment. When referring patients of this class, don't forget that the man who originated the treatment and who devotes his entire time to it is better equipped to do successful work than one with less experience.

The complete work of Dr. Pettey, a volume of more than 500 pages, can be had of him, or of the publishers, F. A. Davis Co., Philadelphia. (Advertisement.)

Abstracts.

ANATOMIC STRUCTURE AND FUNCTION.

In his chairman's address before the Section on Pathology and Physiology at the late meeting of the American Medical Association, W. Ophuls, San Francisco (Journal A. M. A., Aug. 15, 1914), calls attention to a tendency which seems to exist among pathologic workers to pay more attention to morphologic problems than to functional studies. The question of the relation of structure to function, he says, is the great biological problem, if we take structure in its body as including the structure of the chemical substances making up the living protoplasm. In the last resort the relation of structure to function will rest on our conception of force and matter and their identity might be thus argued. He believes that this identity is sometimes lost sight of to the detriment of scientific reasoning. Speaking as a pathologist the condition of affairs seems to him to be at present that there is a large and constantly growing territory in science where our knowledge of the gross and microscopic anatomy furnishes a very adequate explanation of the functional disturbances observed during life. We now know, however, that the microscope has great limitations and it must be empha-

sized that structural change does not necessarily mean change in function. He believes that the importance of the minute histological lesions in the tissues has been greatly exaggerated and in fact in some cases the question arises whether the lesions associated with disturbance of function are really the cause and not the effect. The fact that sometimes the lesions are secondary to some injury not associated with demonstrable changes is often lost sight of. In studying function we cannot rest on its anatomic basis entirely and while we may have some aid from chemistry or physical chemistry there are some obstacles that are difficult to overcome. As Meltzer has shown, chemical research labors under the same disadvantage as pathologic anatomy in that it is dealing largely with dead material. The experimental study of function is of the greatest importance whether we understand the underlying factors or not and Ophuls suggests that some of the energy directed otherwise might well be applied in this way. We have thus obtained our knowledge of the chemical control of the glandular function and many serious errors caused by merely the study of the anatomic parts have been corrected in this way. A thorough understanding of the biologic process in health and in disease cannot be reached by any one method alone.

UTERINE BLEEDING.

The more important points of an instructive article on uterine bleeding by E. Novak, Baltimore (*Journal A. M. A.*, Aug. 22, 1914), in which he reviews the relations of the ductless glands and the nervous system to uterine hemorrhage, are given by him as follows: "1. The proper basis for the study of uterine bleeding is the study of normal menstruation, along physiologic as well as anatomic lines. 2. The factors concerned in normal menstruation are (a) an ultimate cause, residing in the ductless gland chain; (b) a nervous mechanism, essentially vasomotor in character; (c) the uterus, and especially the endometrium. 3. The causes of uterine bleeding may therefore be grouped as (a) fundamental, involving disturbances of the internal secretions; (b) nervous, exerting their effect mainly through the vasomotor nerves; (c) anatomic, in which structural changes are present in the uterus and other pelvic organs. 4. Most frequently the exciting cause of uterine hemorrhage is anatomic, the lesion being in the uterus, tubes, ovaries, blood-vessels

or even the blood itself. 5. In a not inconsiderable number of instances, bleeding is due to fundamental or nervous causes, especially at the two extremes of menstrual life, puberty and the menopause. 6. There is good reason to believe that much light will be thrown on the role of the fundamental causes, and perhaps even of the nervous causes, by clinical methods of study which are based on the relation known to exist between the ductless gland apparatus and the vegetative nerve system."

Deaths.

VAIL—In Little Rock, on Monday, August 17, Dr. James L. Vail, aged forty-five years.

HUDSON—In Camden, on Monday, August 24, Dr. George W. Hudson, aged seventy-five years.

WEAVER—In Fulton, on Saturday, August 29, Dr. Sidney J. Weaver, aged forty years.

County Societies.

LEE COUNTY.

(Reported by Thomas H. Ingram, Secretary.)

It is with much pleasure that we report the recent visit to our city of Surgeon R. H. von Ezdorf of Mobile, Alabama, Director of the United States Public Health Service in the South, with his assistants, Dr. R. C. Derivaux and Mr. J. A. Le Prince, who are making a malarial survey of Arkansas.

While the doctor was here he made a thorough investigation of the sources of infection in and around Marianna, and it was with much pride that we learned that such places were quite few.

It was my own pleasure to accompany the doctor and his assistants on their trip over the city and county and the fields of investigation were thoroughly covered by them.

Through the courtesy of the managers of the motion picture shows of the city, their places were closed for an hour while the public generally attended an illustrated lecture given by Dr. von Ezdorf which was very instructive and especially clear as to prophylactic measures for the eradication of the mosquito.

It was quite a pleasure to show these gentlemen around our city and have their suggestions upon how to build up a better Ma-

rianna, and Lec County, as well as the state at large.

On behalf of the medical profession of Lee County and the public we want to thank these gentlemen for their visit. We feel that their coming will help us in our efforts in the future for the eradication of the South's greatest obstacle—the mosquito.

UNION COUNTY.

(Reported by H. H. Niehuss, Secretary.)

The Union Medical Society met August 3, in El Dorado.

In the absence of President McGraw the meeting was presided over by F. O. Mahoney.

The scientific session consisted of a general discussion on pellagra.

Renewed enthusiasm was evidenced by good attendance and the interest shown for a more improved program for the future.

At our next meeting the secretary will quiz on typhoid fever.

Geo. W. Murphy, L. L. Purifoy and R. A. Hilton will be prepared to answer on the quiz. J. W. Sellers will open the discussion.

PULASKI COUNTY.

(Reported by W. T. McCurry, Sec.)

The Pulaski County Medical Society announces the following program:

Oct. 5, Dr. J. L. Greene, Early Symptoms of Paresis; Oct. 19, Dr. E. M. Hudson, Suppurative Otitis Media; Nov. 2, Dr. W. A. Snodgrass, Injuries to the Skull and Brain; Nov. 16, Dr. S. P. Bond, Epididymotomy; Nov. 30, Dr. S. M. Gates, Neosalvarsan, Indications, Contra-Indications, and Complications; Dec. 14, Dr. M. D. Ogden, Medical Experiences in Europe; Dec. 28, Dr. A. M. Zell, Deep X-ray Therapy.

We hope to have the best meeting this fall we have ever had. Having over a hundred paid members, we would ask that as many as possible begin with the first meeting and attend as many times as they can through the whole year. Let each member take an active part.

LAWRENCE COUNTY.

The Lawrence County Medical Society under date of August 14, announces the following program for the next meeting:

Anesthetics, Conditions in Which Indicated and Methods of Administration.—G. Max Watkins.

Antiseptics, Varieties and Values of Each; Indications for Use in Operative Work.—C. C. Ball.

Preparation of the Patient and Operating Room for Major Surgery.—C. C. Townsend.

Anatomical Structures to Be Considered in Shoulder-joint Amputation.—W. A. Smith.

What Consideration Should Be Given Shock Following Crushing Wounds to the Extremities.—W. W. Hatcher.

Book Reviews.

TREATMENT OF CHRONIC LEG ULCERS, A PRACTICAL GUIDE TO ITS SYMPTOMATOLOGY, DIAGNOSIS AND TREATMENT.—By Dr. Edward Edams. 122 pages. Cloth, \$1.00. Published by the International Journal of Surgery Company, 100 William Street, New York City.

In this little book the author offers the modern methods of treating leg ulcers, also the subject of skin grafting to obtain a sound scar.

A very excellent description is given of a method devised by Prof. Dr. P. G. Unna, Dermatologist, Hamburg, Germany. The author believes that Unna's paste is an ideal treatment and gives full instructions how the paste is made and illustrates the method of application.

CHEMICAL PATHOLOGY.—Being a discussion of general pathology from the standpoint of the chemical processes involved. By H. Gideon Wells, Ph. D., M. D., professor of pathology in the University of Chicago and in Rush Medical College, Chicago. Second edition thoroughly revised. Octavo of 616 pages. Philadelphia. W. B. Saunders Company, 1914. Cloth, \$3.25 net.

A book like this on Chemical Pathology should supply information to a varied group of readers. For the benefit of those whose studies in these subjects date back some years the author has very kindly included as an introductory chapter an epitome of the more modern views concerning the chemistry of the proteid molecule, the composition of the animal cell, and the principles of physical chemistry, in as far as they apply to biological problems. The general consideration of "Enzymes" in chapter two was evidently written with a similar object.

In revising this edition Dr. Wells has largely or entirely rewritten many pages as necessitated by changed views and added knowledge. This is especially true of the chapters on the chemistry of immunity and of the ductless glands.

A MANUAL OF DISEASES OF THE NOSE AND THROAT.—By Cornelius G. Coakley, M. D., Clinical Professor of Laryngology in the College of Physicians, Columbia University, New York. New (5th) edition. 12mo, 615 pages, with 139 engravings and 7 colored plates. Cloth, \$2.75 net. Lea & Febiger, Publishers, Philadelphia and New York, 1914.

This work touches upon the pathology, simplifies and abbreviates the diagnosis, and emphasizes those methods of treatment which are most practical. Its statements are brief and clear, and its illustrations convey valuable supplementary information. With the publication of this new edition, the fifth, Coakley's Laryngology is again before the profession in revised form.

INFANT FEEDING.—By Clifford G. Grulee, A. M., M. D., Assistant Professor of Pediatrics at Rush Medical College, Chief of Pediatric Staff, Cook County Hospital. Second edition, thoroughly revised. Octavo of 314 pages, illustrated. Philadelphia: W. B. Saunders Company, 1914. Cloth, \$3.00 net.

The author of this book has endeavored to bring our knowledge of the scientific processes which underlie infant feeding up to the present, and puts forth in practical application these principles in such a way that they can be grasped by one no more familiar with the subject than the practicing physician.

CLINICAL HEMATOLOGY: AN INTRODUCTION TO THE CLINICAL STUDY OF THE SO-CALLED BLOOD DISEASES AND OF ALLIED DISORDERS.—By Gordon R. Ward, M. D. Fellow of the Royal Society of Medicine, Medical Society of London, etc. Octavo of 394 pages, illustrated. Philadelphia: W. B. Saunders Company, 1914. Cloth, \$3.50, net.

This volume considers the clinical study of the so-called blood diseases which has been so much overshadowed by exclusively pathological investigation. It is secondly concerned with the classification of blood diseases, inasmuch as this is a necessary preliminary to any understanding of their nature.

PROGRESSIVE MEDICINE.—A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by H. A. Hare, M. D., assisted by L. F. Appleman, M. D., Philadelphia. Vol. II, June, 1914. Published by Lea & Febiger, 708 Sansom St., Philadelphia, Penn. Subscription price, \$6.00 per annum.

In this issue Dr. William B. Coley writes an article on hernia; Dr. John C. A. Gerster, that upon surgery of the abdomen, excluding hernia; Dr. John G. Clark reviews gynecology; Dr. Alfred Stengel, diseases of the blood, diathetic and metabolic diseases, diseases of the thyroid gland, spleen, nutrition, and the lymphatic system; and Dr. Edward Jackson covers the subject of ophthalmology.

PSYCHANALYSIS: ITS THEORIES AND PRACTICAL APPLICATION.—By A. A. Brill, Ph. B., M. D., Chief of Clinic of Psychiatry and Clinical Assistant in Neurology, Columbia University Medical School; Chief of the Neurological Department of the Bronx Hospital and Dispensary. Second edition, thoroughly revised. Octavo of 393 pages. Philadelphia: W. B. Saunders Company, 1914. Cloth, \$3.00 net.

This book presents the practical application of Professor Freud's theories in one volume, hoping thereby not only to remove many false conceptions entertained concerning psychoanalysis, but to stimulate further interest in Freud's original work. This edition has been revised and greatly enlarged with many supplements. The new material comprises discussions on artificial dreams, the unconscious factors in neurosis, collecting manias, pathological homosexuality, and fairy tales as a detriment of dreams and neurotic symptoms. It closes with a glossary of psychoanalytic and psychosexual terms.

MEDICAL AND SURGICAL REPORTS OF THE HOSPITAL OF THE PROTESTANT EPISCOPAL CHURCH IN PHILADELPHIA.—Edited by Astley P. C. Ashhurst, M. D. Vol. II, 421 pages. Published by Wm. J. Dornan, Philadelphia, Penn., 1914.

This book contains a report of the superintendent, the chief resident physician, abstract of cases, medical and surgical, a general table of surgical operations. Report of cases treated in the dispensary. Report of the pathological laboratory and x-ray department. The first original article is by E. J. Morris, M. D., on "The Episcopal Hospital in 1888 and 1912." Among other articles we wish to mention, "Excision of the Entire Tongue for Carcinoma," by Astley P. C. Ashhurst, M. D., "The Modern Treatment of Chancroids," by J. Walker Moore, M. D., and "Kidney Disease With Special Reference to the Test for Functional Capacity," by W. E. Robertson, J. V. Klander and E. O. Longaker.

INTERNATIONAL CLINICS.—A quarterly of illustrated clinical lectures and especially prepared original articles on topics of interest to students and practitioners, by leading members of the medical profession throughout the world. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, Penna. Volume II, Twenty-fourth Series, 1914. Published by J. B. Lippincott Company, Philadelphia, Penna. Price of the volume is \$2.00.

Among the interesting articles in this volume we wish to mention the following: Treatment of Prostatism, by Henry Wade, M. D., F. R. C. S. E., Edinburgh; Insomnia: Foot Troubles, Rheumatism and Gout, by James J. Walsh, M. D., Ph. D., New York City; A Simple and Successful Measure for Treating the Perforation of a Gastric or Duodenal Ul-

cer, by E. M. Corner, M. D., F. R. C. S., (Eng.); *The Obstetric Forceps: When and How to Apply Them*, by Harry J. Phillips, A. B., M. D., Louisville, Ky.

PRACTICAL THERAPEUTICS.—Including *Materia Medica* and *Prescription Writing* with a description of the most important new and non-official remedies passed upon by the Council of Pharmacy and Chemistry of the American Medical Association. By Daniel M. Hoyt, M. D., formerly Instructor in Therapeutics, University of Pennsylvania; Fellow of the College of Physicians; Assistant Physician to the Philadelphia General Hospital. Second edition, revised and rewritten. Published by C. V. Mosby Company, St. Louis, 1914. Price \$5.00.

At a glance the reader of this book can get the drug, its, physiological action, and in most cases specific physiological action on different organs, such as the brain, spinal cord, heart, arteries, skin and intestines; the toxicology and its treatment; also the therapeutic indication and contra-indication. This is the only volume on this subject today that is so arranged. It also contains a description and the use of all new and non-official drugs that have been passed upon by the Council of Pharmacy of the A. M. A. It closes with an index of drugs which is of great value and time-saver to the busy physician.

THE CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume III, Number 2. Octavo of 213 pages, 55 illustrations. Philadelphia: W. B. Saunders Company, 1914. Published Bi-Monthly. Price, per year: Paper, \$8.00; cloth, \$12.00.

This number of Murphy's Clinics begins with an article by Dr. Murphy on the examination and analysis of surgical cases and general diagnosis. He says: "A good diagnosis is a scientific construction. It must be built. Knowledge, perception, painstaking care, and the interpretation of clinical history, symptoms, signs, and laboratory findings are the means needed to construct a diagnostic wheel no matter how mild or severe in degree the pathological condition may be. The patient is entitled to the best service, and we must not only be prepared to furnish, but must render it."

Among a number of surgical articles are: "Acute Pancreatic Cyst;" "Duodenal Ulcer;" "Goiter;" "Tuberculosis of Kidney;" "Neuroma of the Ulnar Nerve."

DISEASES OF BONES AND JOINTS.—By Leonard W. Ely, M. D., Associate Professor of Surgery, Leland Stanford University, San Francisco, Calif. Sexto-decimo, 220 pages, 94 illustrations. Surgery Publishing Company, New York. Price, cloth, \$2.00.

The unusual interest now manifested by the profession in acute and chronic arthritis, as well as other forms of bone and joint diseases makes this book particularly timely.

This book is intended primarily for the general practitioner, but instead of furnishing that long-suffering and very important person with a mass of details, and with many methods of treatment from which he may choose, the book lays down broad general principles, with the evidence upon which they are based, and then shows how these principles may be applied.

In a brief, terse way, it presents the anatomy, physiology and pathology of bones and joints, acute and chronic arthritis of various types, ankylosis, diseases of the shafts, acute osteomyelitis, chronic inflammations in the bone shafts, new growths in bone, etc.

The profuse photo-micrographs with other illustrations aid materially in placing up to the eye of the reader the contents of the book and the marginal side-heads, printed in contrasting colors, permits of ready reference.

SEROLOGY OF NERVOUS AND MENTAL DISEASES.—By D. M. Kaplan, M. D., Director of Clinical and Research Laboratories of the Neurological Institute, New York City. Octavo of 346 pages; illustrated. Philadelphia: W. B. Saunders Company, 1914. Cloth, \$3.50 net.

This valuable addition to medical literature will surely meet the approval of many physicians.

The book is divided into four parts, viz:

Part 1. Technology.

Part 2. The Serology of the Nervous and Mental Diseases of the Non-lentic Etiology.

Part 3. The Serology of Nervous and Mental Diseases of Lentic Origin.

Part 4. The Therapeutic Use of Salvarsan.

The technology includes the methods pursued by the author and those that have proved of distinct value in the progress of this subject.

The serology of the negative types is very instructive, showing that a pleocytosis may occur even without syphilis, and helping to differentiate those that are caused by syphilis.

The section on salvarsan is a practical exposition of the subject, besides the ordinary methods as gathered from literature, also such new methods as have proven of utility in the treatment of nervous diseases due to syphilis.

The author says: "That the treatment of syphilitic nervous diseases with salvarsan and neo-salvarsan is still in the experimental stage. Syphilis itself and its active manifestations will be influenced by salvarsan, but the outcome of syphilis, whatever this may be, still remains *sub judice*."

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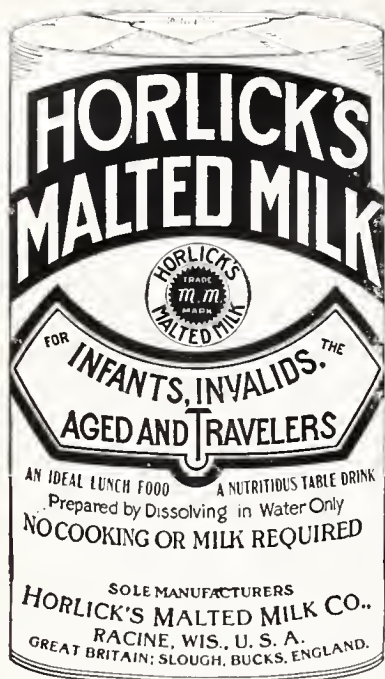
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Original Articles.

THE SURGICAL TREATMENT OF GLAUCOMA.*

By H. Moulton, M. D.,
Fort Smith.

Increased tension of the eyeball with failing vision characterize glaucoma. The disease may be primary or secondary. It may appear suddenly or require months or years to develop. Many factors enter into its etiology. Its diagnosis requires the finest discernment. Its treatment taxes to the utmost the skill and dexterity of the practitioner. The medicinal treatment of glaucoma often retards its progress and improves the vision, but common observations agree that improvement is but temporary.

Almost without exception all cases treated medicinally ultimately relapse and finally become blind. This fact adds great importance to the surgical treatment. All eyes which are ultimately saved are saved by surgery. For half a century the operation of iridectomy as introduced by Von Graefe has held undisputed sway in the treatment of glaucoma. This operation is almost always successful in the acute cases, and in many of the complicated cases, but in some of these and in most of the chronic cases it has not been found reliable. Hence, from time to time other procedures have been proposed, most of which have not been considered on the whole, successful.

At the present time a consideration of these measures is of but little interest, except from a historical standpoint, and will be omitted, with the exception of the newest of them all, which is the *sclero-corneal trephining operation* of Major Elliott. Other men

before Elliott had trephined the cornea or sclera, but he alone has developed and applied the operation in a way which has at once fixed the attention of the whole ophthalmic world. His first operation was done about five years ago. Now it has been done by hundreds of other operators. The principle had been previously employed by LaGrange in his operation of sclerectomy.

To understand better the principle of this operation, let us first recall the main features of the operation of iridectomy.

In iridectomy the incision is made through the sclera close to the cornea into the anterior chamber. A piece of the iris is cut out as close to its periphery as possible. The efficacy of this operation is supposed to lie in the fact that the excised portion of iris opens a corresponding portion of the angle of the anterior chamber, which had been closed by the base of the iris being pushed forward against the sclera and base of the cornea. The lymph spaces through which aqueous humor drains from the eye are in the structures near the angle of the anterior chamber. When the base of the iris is pushed forward, these spaces are blocked. A peripheral iridectomy opens them. The aqueous finds exit and the tension of the eye becomes permanently lowered. In certain cases, especially of the chronic type, this operation sometimes fails to reopen the lymph spaces, or perhaps other factors not understood are present which keep up the high tension. At any rate, in a certain class of cases iridectomy is inefficient and some other means must be employed to safely drain the excess of fluid from the eye and restore normal tension. Such a means is the trephining operation.

While as seen above, the iridectomy is done to reopen the natural channels of drainage, the trephining operation, on the other hand, is done to open up a new and artifi-

*Read in the Section on Surgery of the Thirty-eighth Annual Session of the Arkansas State Medical Society, held in El Dorado, May 19-22, 1914.

cial channel of drainage. The trephining operation on the cornea, mechanically is like the trephining operation on the skull in miniature. On the skull the scalp is raised off the bone, the trephine hole made in the bone and the scalp is laid back over the hole. Just so in the eye operation, a triangular conjunctival flap is dissected from above the cornea downward, the attached base of the flap being toward the cornea. The dissection is carried under the conjunctiva and under the superficial layers of the cornea so that the sclera over the angle of the anterior chamber and a small margin of clear cornea are uncovered. The flap is laid down over the cornea. A small trephine one or two m.m. in diameter is made to cut through the sclero-corneal junction into the anterior chamber, leaving a round hole. The conjunctival flap is replaced over this hole in its original position, being stitched, if necessary, to hold it in position. Thus there is made a permanent subconjunctival opening into the anterior chamber through which aqueous is expected to drain.

That the aqueous does so drain is proved by the edematous elevation of the conjunctiva over the opening and by the lowered tension of the eye. That the opening and drainage will be permanent can be surmised from the fact that in many cases observed for from six months to five years by Major Elliott and others it has been found to be so. In but a few cases has the opening reclosed. To insure permanence of the opening it is necessary to excise a portion of the iris under it, otherwise the iris would block the hole. This is done through the opening before replacing the conjunctival flap.

My own experience with iridectomy in acute and subacute glaucoma is so nearly uniformly successful that I shall not abandon it in these cases for trephining.

But not so with the cases of simple chronic glaucoma, nor with some of the complicated cases, especially those with iris adherent to corneal cicatrices. I remember one of these latter kind, before the days of trephining, which I held up for a time with myotics and a seemingly well-executed iridectomy, but which went on from bad to worse, and in time to complete blindness.

In contrast I would like to report a similar case which I trephined last winter, and which is successful up to date.

Mrs. D., aged thirty-nine years, came November 19, 1913. When twelve years of age

she had a purulent inflammation of the eyes which destroyed the cornea of the right eye and left it hopelessly blind.

The same disease in the left eye at the same time produced a perforating ulcer in the center of the cornea, to which the entire pupillary margin of the iris was adherent. This eye, of course, was for the time being quite blind. But two years later, or when the patient was fourteen years old, the late Dr. T. E. Murrell of Little Rock performed a successful iridectomy upward, which restored useful vision. The patient could see well until eight months before, when her vision began to grow dim, accompanied by slight pain in the eye. Examination showed a large central adherent leucoma of the cornea, with a broad iridectomy upward. The media were clear, but a good view of the fundus was impossible. Tension No. 1. Vision 8-200, with contracted field. One per cent pilocarpine produced no effect.

The previously perfectly executed broad peripheral iridectomy appeared to leave nothing more to be accomplished by a second iridectomy. About one-fourth of the iris had been already removed, clean up to the base. No good place remained for a second iridectomy. It seemed an ideal case for trephining. Accordingly this operation was urged upon the patient, but declined.

Myotics and aspirin were prescribed and the patient went home. On February 5, 1914, the patient returned, ready to consent to the operation. Tension was still high, vision had fallen slightly to 5-200 and the field was still further reduced. That afternoon Elliott's operation was done, subconjunctivally. The trephine, $1\frac{1}{2}$ m.m. in diameter, being applied over the coloboma so that the greater part of the opening into the anterior chamber lay in the clear cornea. The large flap was readily adjusted without stitches and soon adhered. For the first few days there was a great deal of edematous infiltration of the bulbar conjunctiva, not only under the flap, but under the conjunctiva of the entire upper half of the eyeball. This, however, soon subsided. Now there remains an edematous area over the trephine opening only about one-quarter of an inch in diameter. The tension fell at first below normal, but soon was about normal or but little subnormal, and so remains. The vision was not so good during the first few days as before the operation, falling to about 1-200. But at the end of two weeks was re-

stored to 5-200. At the present time vision is 6-200, with a larger field than before operation. There is no pain.

The fact that this was the patient's only eye added to the importance of the operation. I am sure that the trephine accomplished more than could have been accomplished by any other means.

DISCUSSION.

Dr. C. N. Pate (Little Rock)—I enjoyed the paper of Dr. Moulton's very much. I feel sure we should resort to some operation besides the usual operation of iridectomy for glaucoma; for so many times the results are not satisfactory, as there is a return of the glaucoma after iridectomy. I never had the pleasure of observing the operation of trephining of Major Elliott as thoroughly as I would like to; therefore, I don't feel competent to discuss it, but I am glad Dr. Moulton has so ably and concisely recalled the value of the operation to our attention.

THE PREVENTION OF PERITONITIS IN BELATED CASES OF INTRA-AB- DOMINAL INFECTIONS, WITH ES- PECIAL REFERENCE TO IODIN.*

By J. A. Crisler, M. D.,

AND

Eugene J. Johnson, M. D.,
Memphis, Tenn.

Elbert Hubbard says that "the metaphysician is a man who believes ten times as much as he can prove, and proves ten times as much as anyone else will believe." Your essayists will meekly submit to whatever classification you place upon them, provided you grant that we must feel and feel deeply, the honor of addressing so distinguished a body of gentlemen.

Any innovation in abdominal surgery, coming from an humble source, has many stormy seas to sail before men whose feet have trodden only beaten paths, will even tolerate it; but if the edict comes from high authority, we are prone to swallow it, conform to it and assimilate it.

Some believe with Robert T. Morris that pus is a food, a special delectable dish of rare leucocytes, while others see two varieties—the offensive kind, in which the polymuclear leukocytes and the lymphocytes are overcome by the virulency of the infecting organisms, and which is eminently destructive both to tissue and to life, and the other

kinds that has not been, as yet, overcome by the infecting bacteria, and is still defensive.

Just where we draw the line, during active surgical intervention, no sane man has dared to say.

John B. Murphy, whose name is a synonym for all that is worthy in surgical teaching, and for whom we all have the profoundest admiration and respect, has this to say regarding suppurative peritonitis, viz:

(Murphy's Surgical Clinics, Vol. 2, No. 5, October, 1913.)

"When the first five or six patients recovered after this method of treatment, as they did, we thought it was an accident; then we had twelve or fifteen without a death, and we thought it was a coincidence. Now we know that they will get well because the treatment is scientifically correct and the result has become a habit. These results will continue to be good if you bear in mind all these things that are necessary to do, and do them timely, so that to have a death from general suppurative peritonitis of the perforative variety would be one of the things that would lead us to ask ourselves "why?" when formerly it was a recovery that surprised all of us and led to questions. Since 1896 I have had three deaths. One of them was due to a double pneumonia, another to a thrombophlebitis of the portal vein, and the third patient died from a cardiac lesion. None of them died from the suppurative peritonitis."

To those of you whose results have been so good, this paper offers you nothing. However, in our cases we have not been so fortunate. We have not alone lost cases of early peritonitis after the most careful drainage and gentle technique, following out Murphy's plan to the very letter, but we have seen some of our cases of gangrene of the appendix with perforation and gangrenous perforated gall bladders, that reached us before actual diffuse peritonitis had resulted, go on and die in spite of our most earnest efforts, prior to the inauguration of our iodine treatment. We believe that most of you have had similar experiences. There was a time when, if we opened an abdomen and found a leaking appendix into a free cavity, with fibrin plaques here and there on the adjacent intestines, with turbid peritoneal fluid present, yet no successful walling off, we were filled with doubt and fear as to the outcome. Many of these cases, however, will get well by sim-

*Read by title in the Section on Surgery of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

ply removing the source of infection, whether it be a ruptured gall bladder or appendix or a leak from any of the hollow viscera, because the outpouring of white cells and serum may still be defensive and surgery may cure the patient. On the other hand, these fluids may have already become virulently infected, in which case the outcome for recovery is only speculative. The iodine treatment here is eminently fitted, and concludes the story of infection in so far as peritonitis is concerned.

Do not understand us to infer that recovery always results when the infection is terminated, for we all know that after all the toxins that have been absorbed into the blood and lymph streams are the elements that furnish the mortality. However, if we can oxidize these toxins or eliminate them by hypodermoclysis, or by blood letting, along with direct blood transfusion, first cutting off the sources of manufacture and absorption, we will accomplish a cure.

The prevention of peritonitis in neglected and belated cases of intra-abdominal infections appeal to us most strongly, for it is in these cases that most is expected of us, and, as surgeons, we should expect most from ourselves. For, how many times have we seen desperate conditions manifest on the inside of the abdomen that appeared mild and hopeful before the incision was made? If we think this matter over more clearly, we shall be less inclined to throw the burden of reproach upon the general practitioners of medicine who refer these cases to us for surgical intervention. Many of these physicians, especially in the remote districts, have no microscopes and no time to use them if they had. Then, again, we should remember with compassion that the symptoms of appendicitis, for instance, or of acute perforating ulcer of the stomach, and many other sources of peritoneal infection, are not easily diagnosed clinically in some cases, even in the hands of expert internists, until dangerous peritoneal infections have occurred. Then, too, the laity, especially in our more Southern sections, are prone to temporize and to practice subterfuges upon their family doctor, hoping thus to avoid the suggestion of surgery. Your essayists are frequently asked the question, "Where do you get all of these pus cases, especially when your work is confined entirely to private surgical patients?" The answer to this is simple, and lies in the fact that our patrons are not alive

to the great importance of early surgical intervention. Also, it is true that a large number of non-inflammatory cases seek the advice and services of the great clinics in the East and North, and these clinics decry pus cases, for they do not want them, and are unstinting in their mild denunciations of the doctor who refers them; hence, a pus case among them is a rarity, while with us they comprise approximately 10.79 per cent of our work. The use of iodine in combating these infections was first begun by our Dr. Johnson eight years and three months ago, as has been shown in previous articles by us on this subject. Up to April 1st our records show that we have used iodine in the abdomen twelve hundred and forty-seven times for infected conditions, running all the way from simple walled-off appendiceal abscesses to acute diffuse suppurative peritonitis and general suppurative peritonitis. Prior to July 20, 1912, our records were not accurately kept, but from that date to April 1, 1914, we have used this treatment in the abdomen 243 times. Twenty-seven cases of this last series had general peritonitis, from which there were five deaths; three of these were practically moribund when they reached the operating table, the blood showing a marked leukopenia with all the resisting forces surrendered to the infection and, of course, hopelessly overwhelmed with toxins; two of the other desperate cases died from pulmonary embolus and thrombosis of the mesenteric vessels, respectively. Thus it will be seen that our method did not yield as satisfactory results as were shown by the series mentioned above from Dr. Murphy's Clinic, which leads us to conclude that in our own hands "an ounce of prevention" is worth many pounds of cure.

TECHNIQUE OF OUR TREATMENT.

We use a two and a half per cent solution of iodine in alcohol, undiluted, and as soon as the incision is made and the cavity reached, if pus is discovered free in the peritoneal cavity, this solution is poured in immediately so as to thoroughly flood the infected area before any attempt is made to liberate the pathology. By this means we have learned not to fear a spread of infection through mechanical means. The principal feature in this method is to make ourselves feel perfectly sure that the iodine reaches well beyond the area infected, and also that we are operating in an immersed

field, from which no further contamination can reach the healthy portion of the field without first coming in contact with the drug. The amount of the solution that we use is dependent upon the extent of peritoneal infection; that is to say, if the contamination is partially or completely localized, two or more ounces may be sufficient to flood the field and render the necessary service. If, however, there is a wide spread of infection or a diffuse peritonitis, we retract the abdominal incision and elevate the parietes and literally pour the entire abdomen and pelvis full of this solution, taking great care to make sure that the drug reaches all of the fossae and recesses within the abdominal and pelvic cavities. This may require anywhere from eight to thirty-two ounces or more of the solution. After the pathology is dealt with, we take large towel sponges and gently insert these into the most dependent fossae and gently mop out the excess solution and debris, avoiding scrubbing and trauma. Of course, in every case we employ the usual drainage, Fowler position and Murphy treatment. Drainage is always necessary to take care of the abundant serous flow, if for no other reasons. If there is profound toxemia we also use saline hypodermoclysis and when indicated intravenous saline transfusion, in order to more rapidly eliminate the toxins.

OBJECT TO BE ATTAINED.

We are all familiar with nature's defensive elements that are primarily active in an infected area within the peritoneum. This defensive process is manifested by the abundant outpouring of leukocytes around the focus of infection, the object being to destroy the invading bacteria that have gained access to the peritoneum from the infected focus. These phagocytes are victorious in so long as they are able to encompass and combat a given number of the invading bacteria. In progressive cases, however, these are overcome and are no longer defensive, but become offensive, in that they have been mastered by the virulent infecting organisms. A case may end by localization of the infective processes, provided the spread of infection is not too rapid and the resisting forces of the economy are in good fighting order. If this does not obtain, or if the localized abscess ruptures, we have a more general and extensive infection, which may go on to diffuse or general suppurative peritonitis. These latter

processes are evidences of a lost battle on the part of nature and a yielding of the victory to the infecting agents.

The object of the iodine treatment is to disinfect and destroy and terminate the ravages of the invading bacteria and give the fighting elements of nature a chance to successfully array themselves.

Our large experience in the use of this drug and the clinical manifestations after its use in these cases lead us to firmly and conscientiously believe that the infecting elements that are free in the cavity are at once destroyed and that the absorption of toxins, which, after all, is the *sine qua non* mortuary factor of peritonitis, is immediately terminated. Aside from the immediate sterilizing effect of the remedy upon the free surfaces and fluids, we believe that the lymph spaces are rendered incapable of further absorption by the toxins for many hours, while an outpouring of serum and new phagocytes is immediately encouraged. We are strengthened in this belief by the fact that the temperature in these cases almost invariably falls in a few hours from whatever it was down to normal or nearly normal. Also that there is an abundant serous drainage following the operation, which is in excess of the usual drainage following other methods. This tends to disgorge and in a measure wash out the subserous, cellular tissues, which may or may not also receive some beneficent, antiseptic effect through a process of osmosis directly from the iodine that has come in contact with the inflamed serosa.

ADVANTAGES OF THE IODINE TREATMENT.

The advantages of this method or any other method can only be estimated by faithfully comparing it with our former results in similar cases. This is largely a matter of personal equation, coupled with the idiosyncrasies of patients treated. It is our firm belief that we are enabled to save many cases of peritonitis that reach us before the toxins have overcome all or nearly all of the vital forces of the patient that hitherto we have lost by any other methods.

The curing of peritonitis is not the only object of this treatment, nor indeed the principal object. The prevention of the spread of an infection that is eminently threatening the peritoneum with invasion is one of the most beautiful and satisfactory assurances that we have to claim for it. In cases of recently ruptured gall bladders or recent per-

forations of the appendix, where no time has been allowed for the walling off of the process, we have hitherto seen quite a few of these cases go to peritonitis and to death in spite of a most gentle manipulation and careful drainage and treatment by Murphy's method or any other method.

DISADVANTAGES.

The disadvantages in the use of this treatment are purely speculative, theoretical and imaginary. The principal adverse criticisms have been that such large quantities of iodine would be fatally toxic. Then it was suggested that the adhesions following the use of so powerful a drug to the delicate endothelial membrane would produce countless adhesions that would be more hostile to the patient's future welfare than the disease for which it was intended to cure. We can only give you what facts we have to controvert this.

To begin with, we have never seen the very slightest toxic effect nor any evidences of iodine following this treatment. As to the adhesions, our records show that we have reopened twenty-seven abdomens in patients where the treatment had been previously used. The secondary operations were done for repairing resultant ventral hernias in sixteen cases, for the removal of pus tubes in six cases, for gall bladder drainage in three cases and for small unilateral ovarian cysts in two cases.

In this series none of these cases showed any adhesions except a few cobweb adhesions around the hernial ring and in the hernial sac. The length of time that had elapsed between the second operations and the former operations, in which the peritoneum was treated by our iodine method, varied from nine months in the most recent to six years. This interim ought to have been sufficient to have given adhesions all the necessary time to form if they were going to do so.

Considering the almost inevitable adhesions that follow recovery from peritonitis, especially of the more virulent types, we are led to believe that the iodine treatment prevents, rather than encourages, this unfortunate sequela.

A few gentlemen in different sections of the country have been vigorously engaged since our last two papers on this subject in trying to determine that iodine poured into the healthy peritoneal cavity of a dog will produce adhesions and, in many instances,

that it is fatally and quickly toxic. In other words, they seem bent upon the single thought of discrediting our treatment. Their researches are probably interesting to the veterinarian and to the humanitarian, who would fain find a better method of killing a dog than choking him to death on the proverbial "soft butter." Our former papers dealt with this phase of the subject and we refrain from burdening you with it now.

ELIMINATION.

We are often asked what becomes of the drug after it is poured into the free peritoneal cavity in large quantities. To this end we have had competent chemists make numerous laboratory tests of the secretions and excretory matters, in order to determine what became of that part of the iodine that was not removed at the time of the operation or could not run out through the drainage tubes. The results have been, as shown by the chart of Mose Fleming's case, that elimination takes place largely through the kidneys. It is interesting to note that in none of these cases has the iodine appeared in the urine earlier than the eighteenth hour after its use, at which time only a trace is found. The elimination is at its height from the third day on to the seventh. Its combination with the salts of the blood in the form of iodides is very interesting from a physiological and therapeutic standpoint. In some cases as high as forty grains of iodides to three and one-half ounces of urine have been found.

The following chart is inserted to demonstrate how the study of these cases has been conducted. The chart differs from most of the others because the fever persisted several days after the treatment, which is an unusual thing. The chemistry of the urine is similar to that of most of the other studies conducted by Prof. P. M. Holtzendorff.

Mose Fleming, Trimble, Tenn., referred by Dr. J. H. Smith, Trimble, Tenn.:

Operation, Baptist Memorial Hospital.

White, age 12 years.

Family history negative. Was taken very ill with appendicitis four days prior to operation. Examination showed abdomen greatly distended, painful and glazed. Pulse 120 and thready, skin clammy and extremities cold; nausea and vomiting. Patient restless, eyes sunken, mouth and tongue red and dry and paresis of intestine, urine scanty and negative as to casts, but trace of albumen.

April 11, 1913, 9 a. m.—Blood count, 95 per cent poly; blood pressure, sy., 130 m., dy. 60 m., pulse, 120; temperature, 101; respiration, 24.

April 11, 1913—Operation.

April 11, 1913, 10:30 a. m.—Blood pressure, sy., 135 m., pulse, 140; temperature, 101; respiration, 28.

April 11, 1913, 1:30 p. m.—Blood pressure, sy., 140 m., dy., 70 m.; temperature, 101 2-5; respiration, 24.

April 11, 1913, 6:30 p. m.—Blood count, 97 per cent poly; blood pressure, sy., 140 m., dy. 80 m.; pulse, 156; temperature, 102; respiration, 26.

April 12, 1913, 9 a. m.—Blood count, 95 per cent poly; blood pressure, sy., 150 m.; dy., 80 m.; pulse, 132; temperature, 101; respiration, 24.

April 12, 1913, 6:30 p. m.—Blood pressure, sy., 150 m., dy., 80 m.; pulse, 140; temperature, 102; respiration, 28.

April 13, 1913, 10:15 a. m.—Blood count, 95 per cent poly; blood pressure, sy., 150 m.; dy., 90 m.; pulse, 128; temperature, 102; respiration, 24.

April 14, 1913, 9:30 a. m.—Blood count, 89 per cent poly; blood pressure, sy., 150 m.; dy., 90 m.; pulse, 138; temperature, 100½; respiration, 32.

April 15, 1913, 9:30 a. m.—Blood count, 87 per cent poly; blood pressure, sy., 150 m.; dy., 100 m.; pulse, 120; temperature, 100; respiration, 24.

April 16, 1913, 7 a. m.—Blood count, 88 per cent poly; pulse, 118; temperature, 99 4-5; respiration, 22.

URINARY REPORT OF P. M. HOLTZENDORFF.

Specimen A: April 11, 1913, 3 p. m.—Contains no iodine.

Specimen B: April 11, 1913, 6:30 p. m.: Contains no iodine.

From a theoretical standpoint you may be obsessed with horrors in contemplating the use of this treatment. But from a practical standpoint, and from the standpoint of the busy surgeon, whose highest aim is to save life and to establish health, it cannot but please you when you try it liberally and fearlessly. It will render your patient comfortable after an operation because it overcomes pain and serious gaseous distention of the intestines; it reduces fever and nausea to the minimum and renders the abdomen flat and the intestinal tube capable of performing its normal functions.

We have given the matter to you fairly, squarely and conscientiously, with no false claims or any desire to influence you unduly. Such is the supreme evidence of our abiding faith.

We call the attention of our readers to the advertisement of the Uncle Sam Breakfast Food Company, which appears regularly in each issue, and would suggest that they use the coupon, which is conveniently placed for clipping. The Uncle Sam Breakfast Food has passed a critical examination and has complied with all the requirements of the Council on Chemistry and Pharmacy of the A. M. A., and deserves the support of the profession. It is a real laxative breakfast food, which is palatable as well as nutritious. Use the coupon.

THE UNDERESTIMATION OF INTERNAL MEDICINE BY SOME WHO DO SURGERY.*

By Cowley S. Pettus, M. D.,
Little Rock.

That internal medicine occupies the most important place in the scientific practice of our profession is a fact which is many times underestimated; we cannot speak of internal medicine in the broadest sense without bringing into the discussion diagnosis and the laboratory.

The administration of medicine empirically is rapidly being relegated to the quack and disinterested doctor. Among conscientious, progressive doctors it is now virtually a misdemeanor to administer a drug without being acquainted with its physiological action. As the laymen become better informed along this line a thorough knowledge of internal medicine will be necessary to maintain their respect for their doctor. Already to some degree they have lost respect for doctors who prescribe proprietary medicine and question their willingness to investigate for themselves. The reliance of many doctors upon the proprietary houses for their remedies is a sad truth; and as a result while it continues, humanity is treated as a horse, merely given something because it is suggested.

But the uninformed practitioner is not the one I wish to deal with; I am concerned with the thinking doctor, who many times sees only through his own glasses, and whose acts result oftentimes from either carelessness or prejudice, because he is so completely wrapped up in his own line of thought that he fails to see the real worth of a branch of his profession which offers him the greatest protection, gives him an opportunity to eliminate mutilation or restore health after the removal of morbid anatomy.

Internal medicine and scientific application of drugs is positively interesting; while to carry it out correctly and to possess sufficient reason for dealing with the theories demands much common sense. The seriousness with which some doctors accept the value of medicine empirically, without the least scientific experience with the drug, yet they laud its therapeutic value to the skies, find-

*Read in the Section on Practice of Medicine of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

ing later that it was not the drug, but nature that produced all the beneficial results, is amusing.

The history of medicine is extremely interesting, going back to the savage whose mind in its pathetic efforts to form religion and ethical systems for moral and spiritual guidance, or to beautify the more common aspect with romance and poetry, has unconsciously taken the same lines of least resistance, followed the same plans of cleavage. It may be that the civilized mind differs from the savage mind only in respect to higher evolutionary development, but that primitive healing is intimately connected with even the most recent aspects of the subject is true: for example, the effect of therapeutic superstition and the actual cure of certain conditions through the influence of mind upon the body.

The lesson of the unity of primitive medicine, which is only a corollary to the general proposition of the unity of folklore, is that certain beliefs and superstitions have become ingrained in humanity, through space and time, and can be eradicated only through the kind of public enlightenment which teaches that prevention is better than cure.

Greek medicine, Sumerian and Oriental medicine, Egyptian medicine, with their histories, are classical and interesting. But they are of the past, and the most interesting history for the American doctor today is modern medicine. It gives us a starting point which should guide us to the goal. Today the internal medicine man can speak with authority. He is rapidly eradicating that which was at one time true, that medicine is not a fixed science.

It is not my intention to belittle that branch, surgery, in which I sometimes figure, nor to overestimate that branch, internal medicine, in which I would like to figure, but merely to do justice to those entitled to it, as I see it.

If all surgeons were well informed in internal medicine there would be less surgery, and if some of the internal medicine men were better informed regarding surgery, they would advise more to go to the surgeon. As a rule, the internal medicine man is more liberal in his views regarding surgery than the surgeon regarding internal medicine.

Many surgical cases after operation are impeded from a rapid and complete recovery because of the surgeon's inability to appreciate medical treatment. Many undergo oper-

ation who, if only given an opportunity with medical treatment, would not need surgical procedure.

No one would say medicine is of value in cancer, appendiceal abscess or calculus in common duct. It is not those lines of pathology which are considered; but certainly the pathology should be fairly well estimated before the patient is subjected to an operation. Surely the pathology should be well considered before anything is decided, either medicinally or surgically.

The connection of the two, internal medicine and surgery, is not to be considered superficially. The connection is of the deepest consideration and should be stimulated by conscience.

Much surgery is done without proper investigation. A mistaken diagnosis is discovered entirely too late. A mistake surgically which fails to give results lessens the value of surgery and interferes with surgical procedure in many cases, when surgery absolutely offers the only relief. The internal medicine man is of the greatest assistance in extinguishing this enthralling incubus, which forms adhesions around the portion of the brain where thought originates, in unshackling ignorance or prejudice and giving to suffering humanity that which it most deserves; his position being that of sentinel around the fort of human life, a fort which is entitled to the truest and bravest soldiers.

Spending a period in general practice is advantageous to him who aspires for surgery. A scientific knowledge of drugs in many instances gives comfort to the woebegone and sunken soul of the surgeon when he has gone as far as surgery permits and medical procedure is demanded.

The conscientious stride of the internal medical man, especially his independence in administering drugs, is extremely gratifying. Ten years ago Dr. Osler was much reproved by the average doctor and student because of his little use of drugs, but it is now indeed encouraging to see his ideas growing in favor with most scientific medical men.

The public is awakening to the truth that they cannot accurately judge a doctor by his profuse administration of medicine or measure his ability by the number of prescriptions he writes. The first thing a medical student learns is to write a prescription in Latin and to say "Blephritis-Marginalis;" but the secret has leaked out, and the public is beginning to know and to appreciate that

it takes time and study to learn correctly the physiological effect of drugs.

The most superficial student in medicine, if the least gifted in surgery, can easily learn to incise, remove and suture; but to diagnose and administer drugs scientifically, be able to tell what is expected and why, requires an inquiring and thoughtful mind.

When surgery is done many times it is the least in caring for the patient; the after-treatment demands real thought of some one, and oftentimes of the internal medicine man.

The internal medicine man has played many important parts in the drama of progressive and scientific medicine. He is the watchdog over the home of humanity. He it was who relegated the phalaeogons, placed 606 in its realm and gave the finishing touch to turtle serum. The internist will have done another kindness when he has thoroughly convinced the public of the fallacies of Wine of Cardui, Peruna and many such patent preparations, and if the afflicted public persist in unscientific procedures, he has them resort by choice to Christian Science, which is equally as proficient, does not have the damaging effect of actually disturbing the system nor forming drug habits, and has the advantage of allowing nature an even chance, and without masking symptoms. This wholesome education of the patient and his friends and kinsmen will save them, not only from unnecessary complications resulting from those useless treatments, but also oftentimes from the positive harm done by those alleged panaceas. A practical education of this kind leaves the field clear for the work of the scientist, be he surgeon or medical man, and should prove one of the greatest blessings to humanity. The surgeon owes to the scientific medical man a great debt for what he has already done in this field, and will owe a greater debt if he does what he promises to do.

My plea is that surgery properly estimates the importance of the work of the scientific medical man, to the end that both may prove greater blessings and that honor may be done to whom honor is due.

DISCUSSION.

Dr. R. H. T. Mann (Texarkana)—Dr. Pettus has written a very good paper indeed. I think it is a paper rather pointing towards the trend of medicine. The entire field of medicine is drifting towards the scientific part, just the same as playing ball is drifting into teamwork, and it should drift that way more. When that is done every case will be examined, and not serious ones only, by an internist, and every case will be examined by an expert

in that line, and it may take half a dozen doctors to settle finally what is the matter with the patient and how to cure him. And it is drifting this way, and that is what I get from his paper, and that the mercenary part of it will be out of the way in an arrangement of that kind or agreement of that kind. The surgeon does not always send his patients to the internist, because of a mercenary consideration; the internist does not always send his patient to the surgeon, because of the added fee. Arrangements should be made where these people can work together, where patients can be handled in that way, and, whether it is a surgical case or medical case, it will be settled that way. This is the drift of medicine. That is the thing for the patient, and Dr. Pettus emphasized those things. The man who does surgery all the time tends to look at everything in a surgical way. The man who treats a patient all the time tends to treat everything by medicine. The man who looks at the eyes all the time wants to put glasses on everybody; the man who removes tonsils wants to remove them all the time for everything. And, once things drift toward team work, which is easy, then the patient gets the greatest benefit with the least expense. I have enjoyed his paper very much.

Dr. Pettus (Essayist)—I appreciate very much Dr. Mann's indorsement of my paper, and his discussion brings out maybe a little bit more thoroughly some points that I might have made.

INFECTIONS OF THE GALL BLADDER.*

By William A. Snodgrass, M. D.,
Little Rock.

When we speak of infections of the gall bladder it may mean cholecystitis, cholelithiasis or empyemia of the gall bladder.

It has been proven by such investigators as Sutton, Deaver, Ashurst and Moynihan that all cases of gall stones are caused primarily by inoculation by pyogenic and pathogenic micro-organisms, which gain their entrance to the gall bladder or its ducts by the blood stream, through the portal circulation, or directly into the gall bladder from the duodenum through the gall ducts.

The Mayos claimed at one time and taught that 90 per cent of cases of gall stones were due to previous attacks of typhoid fever; that 90 per cent of their cases suffering from gall stones had been affected at some previous time with typhoid fever. But the statistics collected by Deaver and Ashurst show that other micro-organisms are more responsible for the formation of gall stones than the *Bacillus typhosus* or *typhoid bacilli*. Of 413 cases examined in Deaver's clinic at the German Hospital in Philadelphia it was found that the *Bacillus coli communis* was re-

*Read in the Section on Surgery of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

sponsible for more than 30 per cent of all cases of gall bladder disease, while the typhoid bacillus was responsible for less than 8 per cent, to quote the laboratory reports as given by Deaver and Ashurst of 413 cases operated on for gall bladder disease. Since the general use of Widal test for typhoid fevers and a more correct diagnosis of typhoid infections, his theory has been disproven by the laboratory findings of many others, especially by the cases reported by Deaver and Ashurst, and which were operated on by Deaver at the German Hospital in Philadelphia. They report 413 in which cultures from the secretions taken from infected gall bladders were made, and the following table shows the results:

Bacilli coli communis were found in 125..	30%
Bacillus typhoid were found in 29.....	7%
Staphylococcus pyogenes aureus were found in 7.....	1.7%
Streptococcus pyogenes were found in 1..	2%
Staphylococcus pyogenes albus were found in 5	1.2%
Bacillus pyocyaneus were found in 2....	.05%
Bacillus coli communis and streptococcus combined were found in 2.....	.05%
Unidentified bacillus were found in 13..	3.1%
The cultures of 229 cases remained sterile	55.8%

It is evident that the infectious process in gall bladder disease may become inactive. The micro-organisms die or are taken up by phagocytes, as infections do in the other parts of the body, but the results of their activity may remain long after they are gone and active cultures cannot be produced, leaving gall stones, contracted gall ducts or atrophied, contracted gall bladder containing stones.

Gall bladder infections may become chronic, the duration running over a period of many months or years without the formation of gall stones. During this time there are intermittent attacks of pain, followed by jaundice of more or less intensity. The change in the conjunctival in some cases is barely perceptible under a good light, and in others there is intense jaundice; in case the jaundice is intense, the ducts to the gall bladder have become occluded by swelling, and the flow of bile is obstructed by careful palpitation below the costal margin. Over the region of the gall bladder the distended gall bladder may be found distended. If the gall bladder be opened at such times, the bile will be found to be thick and dark, about the consistency of warm tar.

It has been shown by Gerard and Baumeister that gall stones cannot be produced artificially in sterile bile; but by the addi-

tion of a living culture of colon bacilli a deposition of bile salts readily occurs. The interference with the natural flow of bile is caused by the inflammation of the lining of the gall bladder and its ducts, causing a stagnation of bile and a precipitation of cholesterolin, which is attacked by micro-organisms and by their action cholesterol crystals are formed, which are the basis for the formation of all gall stones.

Gall stones have been divided into six varieties, according to their compositions and the combination of compositions:

1. Pure: Cholesterolin stones (small).
2. Cholesterolin bilirubin and billiverdin. (These stones are reddish in color.)
3. Cholesterolin, calcium stones (common gall stones). These are brown when dry and crack readily on the surface, showing a yellowish brown interior.
4. Mixed bilirubin, billiverdin and calcium stones.
5. Bilirubin, calcium stones. (These are small and hard, are usually covered with facets from rubbing against one another.)
6. A rare form of calcareous stones, with a pearly crystalline cholesterolin center has been found in a few cases. These stones are so large sometimes a single stone will fill the entire gall bladder and its ducts.

Symptoms of gall bladder infections are a sensation of fullness in the region of the gall bladder, especially when stooping or leaning the body to the right side; gaseous eructations from the stomach; repugnance to food, especially early in the day; a bitter taste in the mouth; an occasional vomiting of sour, bitter water from the stomach early in the day, before food is taken. The complexion may be normal, but in most cases there is what may be described as a muddy complexion. The conjunctiva of the eyes may be of any shade of yellow from the lightest and whitest yellow to an intense saffron yellow. The patient may be either constipated or bowel movements normal in number. If diarrhea is present it is due to some other cause than gall bladder infection.

Blood examinations in ordinary cases do not show any material change, unless there is pus present; if so, the usual leukocytosis will be found.

If the obstructions to the bile ducts are complete, or almost complete, the stool will

resemble white clay or the well-known chalky stools. The color of the stool is largely due to the bile pigments. During the period of obstruction the bile does not enter the bladder. If a large stone or a number of large stones are in the gall bladder they may remain for years without causing very great inconvenience, as they are too large to engage in the cystic duct or the common duct and cause obstructive jaundice. They may, from pressure, incite further inflammation and cause empyemia of the gall bladder. The small calculi which are able to enter the ducts to the gall bladder are the ones which cause the so-called gall stones or bilious colic. I have removed as many as 142 from a single case. These patients have acute attacks of pain, which may last from a few moments to several hours, usually followed by a jaundice which lasts for a few days. If the stone passes, the patient is usually fairly comfortable until another stone becomes engaged in the passage way from its forming point in the gall bladder to the intestine.

These attacks are often precipitated by taking purgatives or eating. In the latter case the patient may think he has indigestion.

This disease is said to be more frequent between the ages of twenty and fifty years than any other period of life. Gall bladder disease occurring after fifty years of age should always be looked upon as suspicious of malignant disease, unless the symptoms of colic are characteristic. The treatment is: Medical, dietetic and operative medical treatment; consists of administering intestinal antiseptics, especially urotropin; avoid drastic purging; give patient enormous amounts of water to fill the portal circulation and dilute the bile as much as possible. Diet: Meat broths, albumen water, green vegetables, plenty of milk, minimum amount of starch or sugar. Coffee and tea, if permitted, should be weak and in small quantity.

If stones have already formed neither the medicinal nor dietetic treatment will dissolve them or cure the patient; but they will contribute greatly to his comfort.

The operative treatment consists in draining the gall bladder of its contents and allowing the bile to flow freely through the new drainage until the occluded ducts are fully healed and restored to their normal capacity.

DISCUSSION.

Dr. R. C. Dorr (Batesville)—I want to congratulate the doctor on his paper and the results of his operations upon most of his patients. My understanding is that most of these cases that die after the operation don't die from peritonitis or acute inflammatory trouble, but from degeneration of the liver and pancreas. I don't know whether that holds good or not, but I read it. The most frequent cause of death, after operation, is want of free external drainage.

Dr. C. W. Garrison (Little Rock)—We have a very distinguished visitor with us, and I move the courtesies of the floor be extended all the visitors.

Dr. Geo. W. Crile (Cleveland, O.)—I was not fortunate enough to arrive in time to hear all the paper; but inasmuch as I shall have something to say later this afternoon I shall not attempt to discuss the paper now. I am delighted to be here, and thank you very much for the privileges of the floor that you have offered me.

Dr. Snodgrass—I would like to apologize to the society for bringing out such a short paper. As to Dr. Dorr's referring to patients dying from fatty degeneration of the liver following gall stone operation, I will state that this one did not die from that cause; because I made a post mortem and found that the pancreas was very large and swollen at least ten times normal size, especially the head of the pancreas.

Note.—At the conclusion of his paper Dr. Snodgrass exhibited a large number of specimens which he had removed.

PELLAGRA.

J. F. Siler, P. E. Garrison and W. J. MacNeal (Journal A. M. A., Sept. 26, 1914), give a summary of the second progress report of the Thompson-McFadden Pellagra Commission, and state that the chief conclusions from the first year's work were the following: The supposition that the ingestion of good or spoiled maize is the essential cause of pellagra is not supported by their study; pellagra is in all probability a specific infectious disease communicable from person to person by means at present unknown; no evidence has been discovered incriminating flies of the genus *simulium* in the causation of pellagra, except their universal distribution throughout the area studied; if it is so transmitted, *stomoxys calcitrans* would appear to be the most probable carrier; intimate association in the household and contamination of food with the excretions of pellagrins are possible modes of distribution of the disease; no specific cause has been discovered. Large active foci of the disease were found in and near large centers of population in Spartanburg county, particularly in the cotton mill villages.

THE JOURNAL

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ANONYMOUS COMMUNICATIONS.

Anonymous communications will not appear in the columns of this Journal, no matter how meritorious they may be.

Editorials.

STATEMENT MADE UNDER NEW POSTAL LAW IN COMPLIANCE WITH THE ACT OF CONGRESS, AUG. 24, 1912.

Statement of the ownership, management, etc., of the Journal of the Arkansas Medical Society, published monthly at Little Rock, Ark., required by the act of August 24, 1912.

Owned and published by the Arkansas Medical Society.

Known bondholders, mortgagees and other security holders holding 1 per cent or more of total amount of bonds, mortgages or other securities. None.

Dr. William R. Bathurst, editor.

Sworn to and subscribed before me this 22d day of September, 1914.

(Seal)

CHAS. JACOBSON,

Notary Public of Pulaski County, Ark.

My commission expires May 24, 1916.

THE SCIENTIFIC PROGRAM FOR OUR NEXT ANNUAL MEETING.

It is a far cry to the next annual meeting, it is true, but the committee on program will soon be at work on it.

We want to make it "the best ever," if our readers will kindly excuse the expression. To make it meet the views of the greatest number, suggestions are needed. The com-

mittee has ideas of its own, of course, but it wants to supplement them with the views of others. In that way a consensus of opinion will be obtained which will be of incalculable value in making up the most attractive program we have ever had.

Will you give the committee your help?

Would you like to hear papers on "Vaccine and Serum Therapy," for instance, or on "The Exanthematous Diseases" or "The Hygiene and Conduct of Pregnancy and the Pathology of Labor" or a "Symposium on Obstetrics," or one on "Therapeutics?"

If it be true, as has been stated, that "surgery and pathology are further advanced than obstetrics and therapeutics," is it not important that we practitioners should properly assert ourselves and prepare suitable papers on these important subjects?

In other words, what, in your opinion, are the subjects of paramount importance which should engage our attention at the May meeting?

The committee will be glad to invite medical men from other states; so that our members may have the privilege of hearing the most distinguished men in the profession that can be obtained.

If a sufficient number are interested and will exert their influence, it is quite likely that a demonstration from the laboratories of the Medical Department of the University of Arkansas may be secured as one of the features of the meeting.

If any of our readers have any views on the subject of program, let the committee have the benefit of them. Suggestions will be appreciated and they will be given very careful consideration in preparing the program.

Address all communications to "The Committee on Scientific Program," care of The Journal of the Arkansas Medical Society, Little Rock.

THE KILLER OR THE PRESERVER—WHICH?

A century and a half ago, in an age of hero worship, Laurence Sterne, the most whimsically satirical writer that the English letters know, thus satirized the glorification of wholesale murder under the name of war. It is the concluding chapter of the immortal "Tristram Shandy:"

"Wherefore, when we go about to make and plant a man, do we put out the candle, and for what reason is it that all the parts

thereof—the ingredients—the preparations—the instruments, and whatever serves there-to, are so held as to be conveyed to a cleanly mind by no language, translation or periphrasis whatever?”

“The act of killing and destroying man,” continued my father, raising his voice, “you see, is glorious and the weapons by which we do it are honorable. We march with them upon our shoulders, we strut with them by our sides, we gild them, we carve them, we inlay them, we enrich them. Nay, if it be but a scoundrel cannon, we cast an ornament upon the breech of it.”

In those days of wars and rumors of wars and battlefield heroes, the philosophy of Captain Shandy is apropos when we consider the space devoted to the heroes whose mission is to destroy, and that devoted to the return of Surgeon General Gorgas from the Panama zone, whose mission is to conserve human life.

We are still hero worshippers, but the cardinal mistake is our conception of what constitutes heroism. Every schoolboy knows of Caesar, of Hannibal, of Napoleon, of Wellington, of the world's great killers. How many know of the Pasteurs, the Harveys, the Simpsons, the McDowell, the Stiles, the Lavenders, the Blues, Trasks, Von Ezdorf and others of the world's great saviors? Ask any boy what Dewey did, and he will tell you how he smashed the Spanish fleet. Ask him what Gorgas did and he will tell you he never heard of him. The killer, ancient and modern, is a hero. The preserver is known and revered not at all, save by the elect.

The value of the work of Gorgas is beyond all computation. Imagine the dreaded Panama zone, where to go was once considered a form of suicide, turned into a health resort! That is scarcely an exaggeration when we consider the facts. The death rate from pneumonia among the negroes was reduced from 18.74 per thousand in 1906 to 1.30 in 1912. Malaria has been practically eliminated, and the zone has no longer terrors for the visitor or resident. Long before that Gorgas had done what had been regarded as impossible—eliminated yellow fever from Havana.

England, with all her able medical and sanitation scientists, could find no man so well equipped as Dr. Gorgas to investigate sanitary conditions among the mining communities on the Rand, malaria and black water fever in Rhodesia, and his recommenda-

tions, if carried out as they were in Havana and the Canal zone, will doubtless have the same wonderful results in the elimination of these diseases.

And this brings us to the real gist of the matter. Dr. Gorgas has, perhaps, done more than any other man, living or dead, in obtaining actual results in disease prevention and elimination. But what he has achieved in actual results is as nothing to the possibilities of the harvest from the seeds he has sown. His work has been in isolated communities, so to speak, but what of the possibilities when his methods shall have been applied to our whole country, and perhaps to all civilized humanity?

For instance, in the United States about 125,000 people die annually of pneumonia. Malaria causes an enormous economic waste and takes a large toll every year. Tuberculosis, cancer, typhoid and other dread diseases continue to render the death rate abnormal from the viewpoint of natural causes. Why cannot the splendid results achieved in isolated communities be, at least measurably, obtained universally?

What the country needs is a Department of Health in our national government. And we might have one were our views of the important things of life not so strangely distorted.

“Life, liberty and the pursuit of happiness” are the rights of man, as set forth in the constitution. Observe the consequence: Life comes first, and the public health is the public life. Says Pope:

“Reason's whole pleasure, all the joys of sense,
Lie in three words, health, peace and competence.”

Izaak Walton declares health as “the second blessings we mortals are capable of;” Thomas Gray defines it as “heaven's best treasure,” and James Thomas declares that “health is the vital principle of bliss.”

Even as the heroes of great slaughter have precedence over the heroes of life preservation, so in governments the public health is a matter of secondary consideration. Civilized governments must have secretaries of war to look after their vast destructive departments, the army and navy; secretaries of commerce and labor, and all those things, and others, too, are of greater moment than the public health.

The wealth of the nation is measured by the producing efficiency of its toilers, since all wealth must come from the earth and the manufacture of its products. If the average

longevity be reduced by disease and efficiency impaired, there is economic waste. The great fundamental economic truth has never been deeply impressed on the people of the United States, because, in addition to the normal increase of population, we have had a tremendous tide of immigration to draw upon; so that lives have been cheap and labor plentiful. The fact remains just the same, and some day, as real civilization progresses, we shall realize it.

Meanwhile, we most heartily indorse the movement for a National Health Department, and no man is better fitted by qualifications and experience, nor has better claim by reason of achievements for the honor of heading it than the distinguished chief of the Medical Corps of the United States army, Col. Gorgas.

Personals and News Items.

Dr. J. M. Daly has moved from Nashville to Arkadelphia.

Dr. T. S. Burgess has moved from Altus to Russellville.

Dr. M. D. Ogden of Little Rock has returned from Europe.

Dr. C. R. Shinault of Little Rock is attending the surgical clinics in Chicago.

Dr. J. H. Baker has moved from Peach Orchard to All Saints Hospital, McAlester, Okla.

Dr. W. H. DeClark has moved from Winchester to St. Vincent's Infirmary, Little Rock.

The Arkansas Association of Iron Mountain Surgeons will meet November 17-18, Marion Hotel, Little Rock.

Dr. Robert Caldwell of Little Rock is in Boston attending the annual meeting of the American Academy of Ophthalmology and Otolaryngology.

Arkansas physicians visiting in Little Rock during the past month include J. C. Wallis, Arkadelphia; F. T. Murphy, Brinkley; T. G. Porter, Hazen.

The Fifth Annual Meeting of the American Association for Study and Prevention of Infant Mortality will be held in Boston, November 12-14, 1914.

Have you used the coupon of the Uncle Sam Breakfast Food Co.? If not, you are missing something good. Get in touch with

this company and you will be able to recommend a suitable diet for your constipated patients.

I SAW IT IN THE JOURNAL.

We do not wish to play on one string too much, but there are two matters we would impress on our readers. They are:

1. Patronize those who patronize the advertising columns of The Journal.

2. In ordering from them let them know that you saw their "ad" in The Journal.

Here is the point in a nutshell:

The cost of publishing The Journal has materially increased. Our revenue comes from the advertising. Advertisers will not patronize The Journal unless they see results. It is not enough that they get results—they must know unequivocally that they get them.

To illustrate:

Suppose you order a certain article advertised in The Journal, but fail to state where you saw it advertised. Perhaps that advertiser uses half a dozen magazines or the daily newspapers. How is he to know that he is getting results from The Journal unless you tell him? The advertiser who gets results and knows he gets them will renew his contract and recommend The Journal to others. If he gets no results, or gets them without knowing the source, he will quit us.

Therefore, we urge upon our readers the importance of adding to their orders and inquiries the line:

"I saw your advertisement in The Journal of the Arkansas Medical Society."

TRAVEL STUDY CLUB OF AMERICAN PHYSICIANS.

The Travel Study Club of American Physicians, which made a successful Study Tour of Europe last year, has completed the plans for its 1915 Study Tour to the A. M. A. meeting in San Francisco, Honolulu, Japan, the Philippines, China, with optional return via Siberia and Europe (war permitting) or via Canada. This being the first party of American physicians ever visiting the Far East and the new possessions of the United States, a most cordial welcome may be expected by authorities and members of the medical profession.

The Travel Study Club would like to make its enterprise as representative as possible, and therefore requests the kindly co-operation of the members of the Arkansas Medical

Society and ask those interested to communicate with Richard Kovacs, Secretary, 236 East Sixty-ninth Street, New York.

THE BREMERMAN SANATORIUM.

The Bremerman Santarium (Inc.) has been organized for the purpose of erecting at Potash Sulphur Springs, Lawrence, Ark., the only institution in America devoted exclusively to urological surgery.

This building will be of fireproof construction and modern in every detail; the plans being made by most prominent hospital architects. There will be a capacity of 100 beds; every modern diagnostic method will be employed, and the plans are for the erection of the finest institution of its kind in the world.

Dr. Lewis Wine Bremerman of Chicago will be surgeon-in-chief.

Construction will begin in the near future and be pushed to completion as rapidly as possible.

New and Non-Official Remedies.

Since publication of New and Non-Official Remedies, 1914, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Non-Official Remedies":

HEPCO FLOUR—A flour prepared from the Soya bean. It is claimed that clinical trial has shown that the small percentage of carbohydrates in Hepco Flour is in the main not sugar-producing, and that it, therefore, is a suitable food material in cases in which carbohydrates are contra-indicated, as in diabetes, amylaceous dyspepsia, etc. Hepco Flour is also sold in the form of biscuits, as Hepco Dodgers and a granulated "breakfast food" as Hepco Grits. Waukesha Health Products Company, Waukesha, Wis. (Jour. A. M. A., Sept. 26, 1914, p. 1113).

Abstracts.

THE ETIOLOGY OF PELLAGRA.

"Although pellagra has been known and studied for nearly two centuries," says The Journal of the American Medical Association in its issue of September 26, "not only is its essential cause unknown, but the broad question whether it is to be classed as a dietary or a communicable (contagious or in-

fectious) disease has never been definitely determined. The spoiled-maize theory has for many years been the favored theory abroad, but its correctness has, for various reasons, been questioned by many. In this country there has arisen, both in the lay and in the medical mind, the opinion that pellagra is to be classed among the infectious diseases. This view has received important support, first, from the Illinois Pellagra Commission and, more recently, from the Thompson-McFadden Commission (Siler, Garrison and MacNeal.)" The Journal calls attention to a recent issue of the United States Public Health Reports, in which Goldberger gives a summary of certain work now being done by the United States Public Health Service on the study of pellagra, and advances some most suggestive facts, which do not in any way support the infection theory, but strongly point to the belief that pellagra is a disease essentially of dietary origin; that it is brought about in some such way as, for example, by the absence from the diet of essential "vitamins," or possibly, as is suggested by work of Myers and Voegtlin, on the presence in vegetable foods of excessive amounts of a substance such as soluble aluminum salts.

ATTEMPTS TO TRANSMIT PELLAGRA TO MONKEYS.

C. H. Lavinder, Edward Francis, R. M. Grimm and W. F. Lorenz (Journal A. M. A., September 26, 1914), give the results of their attempts to inoculate monkeys with pellagra. In their first experiment in the inoculation of pellagrous tissues, the brain, spinal cord and their membranes were ground, mixed with an equal volume of normal saline and allowed to extract in the ice-box for periods varying between one and eighteen hours, and then filtered, without pressure, through gauze. The filtrate was injected intracerebrally, intravenously, intraspinaly and intraperitoneally into rhesus monkeys. The buccal, thoracic and abdominal contents, except the intestines; the intestines and fecal contents, and the skin, were similarly treated and injected. Blood of pellagrins, after being either defibrinated or citrated, was injected intravenously and intraperitoneally into each of four rhesus monkeys. The pericardial fluid, the urine, the feces, the cerebrospinal fluid, were also used in the experiments. The animals were also fed pellagrous material mixed with spoiled corn meal.

The animals used were rhesus monkeys, Java monkeys and baboons. In all, 103 experiments were made, in which material collected from pellagrins during life or at necropsy was introduced into the stomachs of animals; fifty-two experiments were made in which pellagrous fluids were injected and ninety-six in which extracts, suspensions or emulsions of pellagrous tissue were injected. The animals were exposed daily to the direct rays of the sun. Eight of the animals died. In four instances death was plainly due to some other cause than pellagra. In four the cause of death was undetermined. With one exception the surviving monkeys have so far shown no indications of pellagra. The authors conclude that no inference as to the communicability of the disease can be made.

THE TREATMENT OF PELLAGRA.

Carl Voegtlin (Journal A. M. A., September 26, 1914), presents the treatment of pellagra from the point of view of the pharmacologist and the biochemist. Both are necessary, he says, for a clear understanding of the processes of nutrition and metabolism. He remarks that in the milder cases of this disease the symptoms will almost all disappear in a relatively short time if the patients are kept at rest on a liberal mixed diet, with plenty of fresh meat. The difficulty lies in the fact that pellagrins are usually mentally defective and refuse to follow the directions of the physician unless convinced of its absolute necessity to their recovery. Consequently, psychotherapeutic methods must also be used to succeed with the dietary treatment. Relapses have been known to occur after patients have been exposed to the same conditions which caused the disease to be contracted primarily. The diet should not be reduced in case of diarrhea, and constipation is affected favorably by increasing the fats in the diet. As to the treatment by drugs, he remarks that Lombroso advocated arsenic as a specific in this disease, but in this country it has not met with such good results and its benefits have been denied. He calls attention to the fraudulent advertising of proprietary pellagra medicines throughout the South, these preparations being without real value in the treatment. The patient must be cautioned to keep out of bright sunlight as much as possible. Voegtlin believes that this disease is caused by a chronic intoxication produced by certain vegetable foods used to the extent of a dietary deficiency. In ex-

periments with animals, fed on an exclusive diet of corn, carrots, sweet potatoes, etc., it was found that they developed within three or four days, gastro-intestinal symptoms indicating an intoxication and resulting in death in a remarkably short time. Extracts of these vegetable products, fed or injected into these animals, produced the same symptoms. It was discovered that relatively large amounts of aluminum compounds were present in these vegetable products. Toxic effects from these salts have been observed in both man and animals. Lessening the amount of vegetables ingested and adding eggs and meat to the diet relieves the injurious action of the vegetables on the alimentary canal. Voegtlin summarizes the causative elements in this disease as follows: A deficiency or absence of certain vitamins in the diet; the toxic effect of some such substance as aluminum, occurring in certain vegetables; a deficiency of the diet in certain amino-acids.

FOR SALE—One Wantz X-ray Coil, manufactured by the Victor Electric Company, one Western Coil, 16-inch, manufactured by the Schiedel-Western Electric Company. Both machines suitable for therapeutic and heavy radiographic work. In perfect condition, and at a reasonable price. Address, Dr. A. M. Zell, Bankers Trust Building, Little Rock, Ark. (Advt.)

A TIMELY QUESTION.

What are you going to do with your drug and alcohol habitues? Professional opinion has advanced to the position of regarding these addictions as a disease which is amenable to treatment. Sanitarium care is necessary to the successful handling of such patients, but with the aids afforded by a well-equipped institution, the results of treatment are very satisfactory.

At the Pettey & Wallace Sanitarium, Memphis, Tenn., the most approved methods are employed and the work is carried out under the personal supervision of Dr. Pettey, who originated and published to the profession the now generally accepted method of treatment. When referring patients of this class, don't forget that the man who originated the treatment and who devotes his entire time to it is better equipped to do successful work than one with less experience.

The complete work of Dr. Pettey, a volume of more than 500 pages, can be had of him, or of the publishers, F. A. Davis Co., Philadelphia. (Advertisement.)

Preliminary Program
of the Ninth Annual Meeting of the
Medical Association of the Southwest
to be held in the
Hotel Galvez, Galveston, Texas

November 10 and 11
1914.

Orators for the occasion: General medicine, Dr. Howard Fox, Jr., New York City. Surgery, Dr. M. B. Clopton, St. Louis, Mo. Eye, ear, nose and throat, Dr. Edward Jackson, Denver, Col.

Wednesday evening the profession of Galveston will tender the visiting members of the profession and their wives an "oyster roast," which will be an event long to be remembered.

The following persons have promised papers:

SECTION ON GENERAL MEDICINE.

Dr. Howard Fox, Jr., "Personal Observations Deduced from the Analysis of Several Thousand Cases of Scarlet Fever."

Dr. L. J. Moormau, Oklahoma City, Okla., "The Home Treatment of Tuberculosis."

Dr. G. Wilse Robinson, Kansas City, Mo., "The Clinical Importance of the Sympathetic Nervous System."

Dr. Harvin C. Moore, Houston, Tex., paper (subject to be announced).

Dr. Jno. S. Turner, Dallas, Tex., "The Treatment of Apoplexy."

Dr. A. R. Bowman, Uvalde, Tex., "Just Pregnant."

Dr. H. L. Wilder, Glen Rose, Tex., "Urinalysis for and by the Country Doctor; a Demonstration."

Dr. D. C. Homan, Oglesby, Tex., "The Diagnosis and Treatment of Diphtheria from the Viewpoint of the General Practitioner."

Dr. J. M. Martin, Dallas, Tex., "An X-Ray Study of the Gastro-Intestinal Tract."

Dr. W. A. Hadley, Dickinson, Tex., "Artificial Feeding Among Sicilian Immigrants, With Blood Count in Twelve Cases."

Dr. J. H. Eastland, Mineral Wells, Tex., "Taenia Nana in the Southwest."

SECTION ON SURGERY.

Dr. Gordon A. Beedle, Kansas City, Mo., "Surgical Consideration of Floating Kidney and Its Association with Colonic Ptosis."

Dr. Albert Smith, Parsons, Kans., paper (subject to be announced).

Dr. Ernest G. Mark, Kansas City, Mo., paper, (subject to be announced).

Dr. B. Belove, Kansas City, Mo., "Original Research in the Mechanical Pathology of the Foot, with Theoretical Suggestions of a More Rational Treatment." (Illustrated with stereopticon views.)

Dr. W. D. MeVicker, Wichita, Kans., "Pain; Its Surgical Significance."

Dr. W. H. Stauffer, St. Louis, Mo., "The Treatment of Ischio-rectal Abscess and Fistula in Ano."

Dr. F. C. Walsh, San Antonio, Tex., "Prostatectomy. The Method of Election."

Dr. A. C. Scott, Temple, Tex., paper, (subject to be announced).

Dr. Arthur E. Sweatland, Nacogdoches, Tex., "A Plea for Greater Care in Diagnosis and Differentiation of Pathological Conditions in the Abdomen."

Dr. W. B. Russ, San Antonio, Tex., paper (subject to be announced).

Dr. Jabez N. Jackson, Kansas City, Mo., paper (subject to be announced).

Dr. Walter S. Sutton, Kansas City, Mo., paper (subject to be announced).

Dr. R. C. Dorr, Batesville, Ark., paper (subject to be announced).

Dr. W. B. Thorning, Houston, Tex., paper (subject to be announced).

Dr. Joe Thompson, Galveston, Tex., paper (subject to be announced).

Dr. J. Hutchings White, Muskogee, Okla., paper (subject to be announced).

Dr. W. E. Dicken, Oklahoma City, Okla., paper (subject to be announced).

Dr. George H. Moody, San Antonio, Tex., "Importance Attached to All Historical Manifestations."

Dr. John R. Worley, Dallas, Tex., "Anesthesia; Results of Some Experimental Work in the Laboratory" (illustrated with lantern slides.)

Dr. Lee F. Watson, Oklahoma City, Okla., "Results of Injection Treatment of Goiter in Twenty-five Cases" (illustrated with lantern slides).

Dr. F. Paschal, San Antonio, Tex., "The Necessity for the Centralization of Power for the Better Protection of Public Health."

Drs. Singleton and Carter, Galveston, Tex., "A Method for the Transfusion of Blood."

Dr. W. J. Calvert, Dallas, Tex., paper (subject to be announced).

Dr. Beu F. Smith, Hillsboro, Tex., "A Case of Typhoid Fever Complicated by Abortion, Intestinal Hemorrhage and Perforation of the Ileum."

Dr. Julius McIver, Gainesville, Tex., "Report of Cases."

Dr. Theo. Y. Hull, San Antonio, Tex., "Tuberculosis, the Soil and the Bacillus."

Dr. M. M. Smith, Dallas, Tex., paper (subject to be announced).

Dr. J. O. Segura, Houston, Tex., "Pyelitis in Children."

SECTION ON EYE, EAR, NOSE AND THROAT.

Dr. John O. McReynolds, Dallas, Tex., "The Present Status of Tonsil Surgery."

Dr. E. H. Lanier, Texarkana, Ark., "Infective Sigmoid Sinus Thrombosis; Report of Case."

Propaganda for Reform.

DIGALEN OMITTED FROM N. N. R.—In view of increased extravagance regarding the claims made for Digalen by the Hoffmann-LaRoche Chemical Works, the Council on Pharmacy and Chemistry decided to investigate the present eligibility of Digalen. Examination demonstrated that the asserted presence in Digalen of "amorphous digitoxin" was not substantiated by evidence, that Digalen and Digalen Tablets were not constant in composition and action and that the claim that Digalen causes less gastric disturbances than digitoxin was unfounded. While the manufacturer promised to hold the claim that Digalen contained "amorphous digitoxin" in abeyance, they refused to concede the vari-

able composition of Digalen and reasserted that Digalen was less liable to cause gastric irritation than other digitalis preparations. In view of the overwhelming evidence that Digalen is variable in action and in composition and that it produces the same gastric disturbances as other digitalis preparations, the council voted that Digalen and Digalen Tablets be omitted from N. N. R. (Jour. A. M. A., Sept. 5, 1914, p. 881.)

DOSE OF DIPHTHERIA ANTITOXIN—While 3,000 units, the dose given in the Pharmacopœia, probably is a sufficient initial dose in many cases, the quantity is not enough to satisfy the factor of safety. There is a growing opinion that no case of diphtheria should receive less than 10,000 units as the initial dose. (Jour. A. M. A., Sept. 5, 1914, p. 873.)

VACCINATION AGAINST SMALLPOX AND TYPHOID—In view of the war, a general revaccination of the population of Paris has been ordered and huge quantities of anti-typhoid serum have been prepared. (Jour. A. M. A., Sept. 5, 1914, p. 873.)

ANGIER'S EMULSION—A report of the Council on Pharmacy and Chemistry points out that when Angier's Emulsion, Angier Chemical Co., Boston, Mass., was first put on the market it was advertised as a "food-medicine" and an "Ideal Substitute for Cod Liver Oil." Although the manufacturers now advertise this product as a laxative and state it to be "purely mechanical in its action," they still mingle with the new ones the old claims of "tonic and reconstructive merits" and thus attempt to perpetuate the erroneous belief that the preparation has nutritive value. As to the identity of the petroleum product contained in the preparation, regarding which the advertising circulars make contradictory statements, the A. M. A. Chemical Laboratory reports that this has all the properties of soft yellow petrolatum. (Jour. A. M. A., Sept. 12, 1914, p. 962.)

ANGIER'S THROAT TABLETS—These tablets are stated to be composed essentially of elm bark and petroleum and yet are claimed to "promote appetite and aid digestion." The A. M. A. Chemical Laboratory reports the tablets to contain about 12 per cent of soft yellow petrolatum, like that found in Angier's Emulsion. (Jour. A. M. A., Sept. 12, 1914, p. 964.)

ANTISEPTIC ACTION OF HEXAMETHYLENAMINE—The former opinion that hexamethylenamin possesses antiseptic action independ-

ently of the liberation of formaldehyd, was an assumption not founded on reliable experimental evidence. The recent investigations of Burnam, Hazlik and others have shown that its action as an antiseptic depends on the decomposition into formaldehyd and ammonia which occurs only in an acid medium. (Jour. A. M. A., Sept. 12, 1914, p. 962.)

VACCINE VIRUS NOT CONTAMINATED—A study of cases shows that vaccinal tetanus is not due to contaminated vaccine virus. Further, since the law regulating the sale of biologic products in 1902 went into effect, there have been examined in the Hygienic Laboratory of the United States Public Health Service over 1,500,000 doses of vaccine virus, without a single specimen having been found to contain tetanus spores. Also, experiments indicate that tetanus will not be produced even if the virus used contains tetanus spores. Most cases of vaccinal tetanus are due to infection after vaccination. (Jour. A. M. A., Sept. 19, 1914, p. 1032.)

SODIUM VS. POTASSIUM SALTS—The probable shortage of potassium salts due to the war suggests that sodium salts may in most cases be substituted without disadvantage. In general, potassium salts have no marked superiority over the corresponding sodium salts. While the potassium compounds are said to be more active and to possess a more diuretic effect, the sodium salts are less depressing to the heart, and in some instances less disagreeable to the taste. Sodium iodide, sodium bromide, sodium acetate, sodium citrate, etc., are just as effective as the corresponding potassium salts. (Jour. A. M. A., Sept. 19, 1914, p. 1034.)

SANOTOGEN—Testimonials for Sanatogen are published, which show good results in cerebral concussion, alcoholic gastritis, anemia, etc. The patient is given a chance to recover by rest, a proper diet and Sanatogen—and the recovery is attributed to Sanatogen. Based on some biologic experiments the exploiters of Sanatogen assert that "Sanatogen acts as a strong stimulus as far as the recuperative powers of the blood are concerned." These experiments were repeated by Prof. A. J. Carlson of the University of Chicago, using Sanatogen, casein, casein and glycerophosphates, milk and crackers and milk. Prof. Carlson's experiments show that the effects produced by Sanatogen are not different from those obtained when casein,

casein and glycerophosphates, milk and crackers and milk are used. (Jour. A. M. A., Sept. 26, 1914, p. 1127.)

VALUE OF TALCUM POWDERS—The action of talcum powders on the skin depends on their protective and dehydrating properties. On the other hand, they tend to form crusts and pastes, due to mixture of the powder with sweat or other secretions. There is doubt if the boric acid in talcum powders can exert any antiseptic action. The action of the salicylated talcum powder of the National Formulary, though containing 10 per cent of boric acid, depends on its salicylic acid. Commercial talcum powders contain small amounts of various antiseptics and perfuming agents and have little value from a therapeutic point of view. (Jour. A. M. A., Sept. 26, 1914, p. 1129.)

LIQUID SOAP—The following economical formula has been proposed. It may be flavored and colored to suit: Sodium hydroxid 55 gm., potassium hydroxid 65 gm., cottonseed oil 800 c. c., alcohol 500 c. c. and water to make 5,000 c. c. (Jour. A. M. A., Sept. 26, 1914, p. 1129.)

SIGNIFICANCE OF THE WORD "LUTEIN"—The word "Lutein" has long been applied in physiologic chemistry to designate a group of fat-coloring matters which occur in nature and which have more recently also been given the general designation of lipochromes. As a rule the use of the term has been restricted to the yellow coloring-matter which develops in the ovarian structures. It is unfortunate that lately various preparations of desiccated corpora lutea from animals are being sold as lutein. (Jour. A. M. A., Sept. 29, 1914, p. 1119.)

Obituary.

DR. E. K. WILLIAMS.

Arkadelphia, Sept. 11.—The funeral of Dr. E. K. Williams, aged 54, one of Arkadelphia's most prominent physicians and leading citizens, who died yesterday of pneumonia, was held at the family residence here this afternoon at 4 o'clock.

Dr. Williams had practiced in Arkadelphia twenty-four years and was a leading spirit in the activities of the city, as well as in his profession. He was well known in Little Rock.

Dr. Williams was born in Brownsville, Tenn., in 1860. He was a graduate of the

University of Tennessee, having been a classmate there of Secretary McAdoo. His professional education was completed in England, France and Germany. In 1884 he married Miss Sue Harvey of Brownsville. To their union three children were born. They are Mrs. Jay Hardage, Martha Williams and Frank Williams.

Dr. Williams was a member of the Methodist church and also of the Elks' fraternity. Interment will be in Rose Hill cemetery.—Democrat.

DR. RUDOLPH FROEHLICH.

Stuttgart, Sept. 25.—Dr. Rudolph Froehlich, 37 years old, died at his home in this city very suddenly this morning. Dr. Froehlich was born in Baden, Germany, where he was educated in medicine and practiced as a physician and surgeon until coming to America, about ten years ago. He first located in North Dakota, where he resided about one year, then moving to this city, and had resided here and practiced his profession here. He is survived by his wife in this city and his father, who is a prominent physician and surgeon, in Baden, Germany. The body will be sent to St. Louis tomorrow for cremation, in accordance with a request Dr. Froehlich made recently.—Gazette.

County Societies.

FRANKLIN COUNTY.

(Reported by Thos. Douglass, Sec'y.)

The Franklin County Medical Society held its regular meeting August 4, with the president, Dr. Blakely, in the chair, and Drs. Williams, Downey, Wear, Blackburn, Harrod, Porter, Gibbons, Burgess, Post and Douglass also present.

Dr. Downey presented a case of vitiligo, and Dr. Porter a case of pellagra.

Dr. Harrod read a paper on "Appendicitis," which was well received and discussed.

We also held the regular meeting September 1st, with Dr. Blakely presiding and Drs. J. P. Blakely, Post, Porter, Harrod, Burgess, Bowen, Williams and Douglass present.

Dr. Porter reported the favorable progress of his case of pellagra.

There was another clinic with the diagnosis doubtful. The case was sent by Drs. Downey and Rambo.

The secretary, being on the program for a paper on "Finance," talked about "doctor's

bills" to the dissatisfaction of the other members, who thought he was too mild and sympathetic to make a success of the financial side of medicine.

Dr. Post read an interesting paper on "Medical Ethics," which was well received.

We are rather proud of our record for this year, as we have had an interesting, well-attended meeting every month this year.

LAWRENCE COUNTY.

(Reported by H. R. McCarroll, Sec'y.)

The Lawrence County Medical Society held its regular session in Walnut Ridge on Wednesday, September 2. The topic for discussion was "Surgery," but as our time was somewhat limited, we only had two papers. "Anesthetics—Those in Use, Cases Where Indicated and Methods of Administration" was the title of a paper given us by Dr. G. Max Watkins.

"Preparation of the Patient (Local) and the Operating Room for Major Surgery" was the subject handled by Dr. C. C. Townsend. The papers were to the point and were so well prepared and contained so many good things, that most any physician would have been amply paid for the time necessary to hear them, and the discussion which followed.

The attendance was unusually good and the physicians all took pride in making the meeting a success. We are to have another symposium on surgery the first Wednesday in October.

Our meetings are growing in interest. Any visitors wishing to attend will be extended a cordial welcome.

Those in attendance were: J. W. Wilders, W. W. Hatcher, J. C. Hughes, William Johnson, H. R. McCarroll, J. W. Morris, W. J. Robinson, W. A. Smith, J. C. Swindle, Earle Thomas, C. C. Townsend, G. A. Warren and G. Max Watkins.

Book Reviews.

GUIDING PRINCIPLES IN SURGICAL PRACTICE.—By Frederick-Emil Neef, B. S., M. L., M. D., Adjunct Professor of Gynecology, Fordham University School of Medicine, New York City. Sextodecimo, 180 pages. Surgery Publishing Company, New York. Price, cloth, \$1.50.

The author answers herein some of the questions which present themselves to the general

practitioner and surgeon, particularly in the beginning of his career, during the period in which he formulates for himself the rules that are likely to direct him in his future work.

The viewpoint is based on clinical studies in the operating room and at the bed-side of the patient. The book covers the practical points in the preparation of the patient for an operation, the arrangement of the operating room, the important relations between the surgeon and his anesthetist, the assistant, the family physician, the nurse during the course of the operation, also the after care of the case.

The mechanical features of the book are superb, presenting throughout marginal headings in contrasting ink, facilitating most ready reference.

PRACTICAL THERAPEUTICS—With Especial Reference to the Application of Remedial Measures to Disease and Their Employment upon a Rational Basis. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics, Materia Medica and Diagnosis in the Jefferson Medical College of Philadelphia. New (15th) edition, thoroughly revised and rewritten. Octavo, 998 pages, with 144 engravings and 7 plates. Cloth, \$4.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1914.

The present new edition excels, if possible, the excellence of preceding volumes. The same plan is followed throughout; the useful characteristics have been maintained; the text has everywhere been brought up to date, and certain articles have been added or rewritten. For example, those on salvarsan and neosalvarsan, tuberculin, anesthetics, digitalis and the other cardiac drugs. The text, which deals with many of the newer methods, such as vaccine therapy, will be found judicial and unbiased. The following quotation from the preface is characteristic of the spirit which pervades the entire work: "This is the era of therapeutic rationalism. When remedies are given not because they are recommended by, or said to be valuable by some authority, but because their use appeals to the medical man who has a knowledge of the physiological, pathological and therapeutical problems to be faced, and can, therefore, judge for himself what remedy is best suited to a given case when he is informed how it acts."

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Arkansas Medical Society

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UNIVERSITY OF TENNESSEE



COLLEGE OF MEDICINE, SCHOOL OF PHARMACY AND COLLEGE OF DENTISTRY, MEMPHIS

Across the street from Lindsley Hall is the Memphis City Hospital. Capacity 275 beds, under Clinical control of this college.

Alongside is to be the Municipal Hospital for Contagious Diseases. All autopsies held in city hospital—40 to 60 per year—in the presence of and with the assistance of students of Pathology.

Baptist Memorial Hospital, capacity 150 beds, 40 beds under control of this College.

150 feet south is site of new Methodist Hospital soon to be built. All hospitals, including St. Joseph, maintain more than 350 free beds available for Clinical instruction.

Lindsley Hall, four stories, 34 halls and rooms; office of Registrar-Bursar, General Library and Museum, Organic and Physiological Chemistry, half of Free Dispensary, Practical Pharmacy Laboratory, one entire floor, and senior and junior lecture rooms.

Eve Hall, new four-story Laboratory building completed in 1912, three large laboratories and 21 rooms, office of Dean, the all-time Professors of Pathology and Clinical Microscopy, Bacteriology, Physiology and Pharmacology. Three departmental libraries, three research laboratories and 12 rooms for Free Dispensary instruction.

Rogers Hall, across Forrest Park from Eve Hall and Lindsley Hall, four stories, 37 halls and rooms, including Auditorium and gallery seating 1000 persons, laboratories of Anatomy; Organic Chemistry, Histology and Embryology. The College of Dentistry also has ample space in this large building.

Most of the first year medical subjects are taught here.

Four medical colleges united. Ten all-time teachers. Twelve separate well-equipped laboratories for fundamental instruction besides several research laboratories. Twenty-two free dispensary rooms specially equipped for each department. More than 350 free beds in hospitals.

Three new college buildings. More than one hundred in combined faculties of the three Memphis departments.

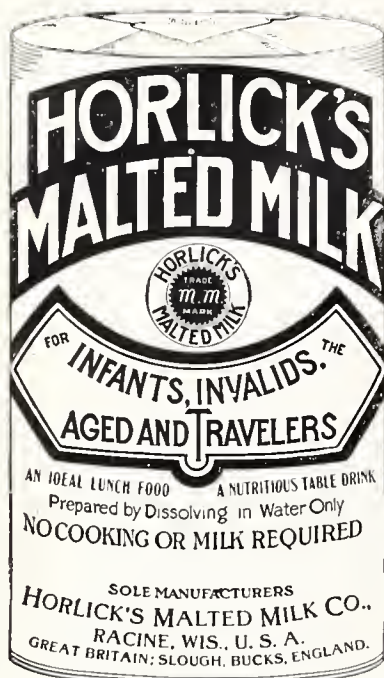
Hereafter one year of college work in Physics, Chemistry, Biology and French or German will be required for admission to the first year of the medical course proper.

Beginning September 21, 1914, both at Knoxville and Memphis, a preliminary year in Physics, Chemistry, Biology and French or German will be offered. The tuition charge for said course at Memphis will be \$100.00. At Knoxville the same fee, \$100.00, will be charged to non-residents of Tennessee. To residents of Tennessee taking this course at Knoxville the tuition will be free, the State paying their railroad fare from their homes to the University and return.

Registration days all Memphis departments Sept. 15th. to 21st.

FOR COPIES OF THE UNIVERSITY OF TENNESSEE BULLETIN, ADDRESS THE REGISTRAR-BURSAR OR THE DEAN OF THAT DEPARTMENT ABOUT WHICH INFORMATION IS DESIRED

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No. 6

Original Articles.

SPINAL ANALGESIA AND REPORT OF CASES.*

By R. A. Hilton, M. D.,
El Dorado.

That the surgeons and public as well are not satisfied with the present means and methods of anesthesia is evident from the literature written and distributed on the subject to our medical journals.

Nor will either be satisfied until the surgeon is furnished with an anesthetic that in no way jeopardizes the life of his patient, and at the same time gives him a patient whose physical condition for surgical procedure is ideal.

The subject for anesthesia will not be satisfied until he is morally sure that his life is in no way in danger by going under the anesthetic, and still is relieved from pain.

The conservatism of our investigators for this anesthetic, and the methods invented in using it, necessarily and very properly make our progress slow. The use of analgesia is only following the path made and trodden by other anesthetists prior to the suggestions of the possibilities of spinal anesthesia by Corning of New York. Ether, first used by Dr. Crawford Long in 1842, fell in disrepute, and but little was heard of it for several years afterward. Dr. Wells, the first to use and demonstrate the use of gas, was so much chagrined and discouraged in his efforts that he used it for the purpose to forever forget. However, in spite of this acknowledged defeat of Dr. Wells, and the neglect by the profession and public of Dr. Long's demonstration, today the world acknowledges the value and efficacy of both to the field of surgery and relief of pain to the subjects.

Despite the criticisms of Jonnesco and the use of stovain and strychnia in the United States in 1909, and the lack of faith of Dr. John Dill Robertson of Chicago in its efficacy

as used by Jonnesco; and though Drs. Reclus and Schartz of Paris and Dr. Delorme, inspector general of the French army, announced their unbelief in its advantages, as described in a report of 320 cases by Dr. Forgue, clinical surgeon of the faculty at Montpellier, and Dr. Schartz further renouncing spinal anesthesia forever. Speilmeyer's report on his investigation in cases where he injected stovain in the spinal canal of dogs and apes, and found a system degeneration in the spinal cord, which, if the same physical condition should be true in man with this drug, it would be criminal to use it as an analgesic. Prof. Rhen believes that the use of it higher than the lumbar regions is attended with much danger, we, in justice to the field of surgery and the protection to its people who would be subjects of anesthetics, look further, with a logical, unbiased and reasonable mind, and see if there are other surgeons who of the different agents for spinal analgesia would have reports that would overcome, prove and be convincing that spinal analgesia yet has a right to be considered by the surgeons.

In December, 1909, Dr. G. M. Rickett of Cincinnati gave expression on the subject of local and spinal vs. general anesthesia, by way of comparison, showing the local and spinal anesthesia has not only the advantage over general anesthesia in the lower half of the anatomy, but is unquestionably much safer in shock in subjects with arterio-sclerosis, gangrene, diabetes, cardiac disease, bronchitis, endocarditis, pleurisy, gastritis, vomiting, cerebral hemorrhage, yellow atrophy, retention of urine, and convalescence is much shorter and is the cause of no disease of the kidney.

Dr. Charles D. Robins of Richmond, Va., reports one case of tubercular osteitis of femur, which after beginning the operation found it necessary to make a hip joint amputation, and one other case a laparotomy where it was necessary to make two incisions, one for an appendectomy and second incision to get to an abscess behind peritoneum. Both cases were successful under spinal anesthesia,

*Read in the Section on Surgery of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

and as he thought, all general anesthetics were contraindicated.

Dr. Kohn of Seranton, Pa., reports while on staff of Dr. E. G. Ross of the State Hospital about 300 cases operated on with spinal analgesia, using the stovain solution, with no deaths, subjects' ages from 3 to 90 years.

Dr. Freeman Allen, anesthetist to Children's Hospital, Boston, Mass., reports 320 cases, with no deaths, but 19 failures, he using stovain, novoeain or tropaeoeain in combination with epinephrin.

The report from New York by Dr. William Seaman Bainbridge of 1,065 cases, with one death, his subjects' ages from three months to old age. The one death that he reports was such that it should not be charged to the agent or method of using it, as any anesthetic would likely produce the same results. He reports three cases where it was unsatisfactory.

Drs. Waugh and Lane assert that the use of spinal analgesia in children in acute abdominal conditions reduces the mortality by 20 per cent.

Sellheim, in 1909, reported a thousand cases of major gynecological operations, with one death under spinal analgesia.

Kroneig, in 1912, reported 2,542 cases, with no fatalities.

Dr. Babeock of Philadelphia reports 5,000 operations performed under spinal analgesia, of which 3,000 were operations on the abdomen, pelvis and adjacent parts; 173 of this number were on the liver, gall bladder and its ducts. He further during the last nine years has selected spinal analgesia for all abdominal operations of the toxic, septic or desperately sick, he using as agents stovain, tropaeoeain and novaeain.

Dr. Gellhorn of St. Louis reports 63 operations, with complete failure in one case; three other cases he reports analgesia not satisfactory; of the 63 there were 37 laparotomies. In the majority of these reports there were about 30 per cent complained with headache. A small per cent were troubled with nausea for a short time.

The report given in 1910 by Dr. S. P. DeLaup must appeal to any surgeon who is seeking to render to his clientele the safest means of anesthesia, especially in operations on genito-urinary organs, rectum and anus; he reports 1,239 cases were operated on at that time, of which 1,037 were for disease of the rectum, anus and genito-urinary organs; this report shows 33 per cent had slight headache; 1 per cent had fairly bad headache, lasting four or five days; 15 per cent were troubled with nausea and vomiting; 1,225 were successful; 11 incomplete as to location and duration; 2 failures, 1 resulted fatally; the case of death that he records was a negro

injured in a sawmill, with lacerated and contused wounds of the right arm, fracture of the right humerus, laceration and contusions of the neck and shoulder, and general contusions of head and trunk. One week after injury there was gangrene of the right hand, with loss of sensation to the elbow; his condition was very serious and required immediate attention. While preparing the dorsal regions for the puncture he came near fainting. An injection of 16 m. of a solution containing one-half grain of stovain and 1-100 grain of strychnia sulphate was given between the first and second dorsal vertebrae. The patient was held up a few minutes after receiving the injection, and the attendants carelessly allowed his head to fall rather forcibly on the pillows. About ten minutes after receiving the injection and before any operative procedure, his respiration became labored and shallow, and continued to grow worse until he died, in spite of many things that were done for him.

The mortality of chloroform and ether and all other general anesthetics is still unknown, while it is a fact that the fatalities from them are few on the table for operations, but the deaths following the giving of these anesthetics bringing on pneumonia and various other chest troubles, nephritis and many other troubles and conditions that we are too well acquainted with to discuss here, which carry them to the grave, and are not charged to the anesthetics, and both the private and hospital reports will corroborate the truthfulness of this statement.

The report of Dr. James P. Gwathmey of New York, in his effort to get statistics on anesthesia, it was found impossible to get any information that could be relied on as correct. In his request to the 1,400 hospitals in the United States, Canada and Canal Zone, 201 responded, half of this number stating that they had no statistics to give and the other 99 giving statistics which were very incomplete.

St. Bartholomew Hospital, London, according to Dr. Gwathmey, during the years 1875 to 1900 there were 80,255 administrations of chloroform, ether and gas ether, showing a fatality of 1,300 for chloroform and one in 9,319 for ether and gas ether. In a work now in press, Dr. C. W. Allen of New Orleans will state there is about an average of 9 per cent failures; this includes cases of complete failures, partial, incomplete or unilateral anesthesia and short or delayed anesthesia. Taking this short report, in comparison with the general physical conditions in the accounts of the operations as reported by those men who have been successful and unsuccessful with spinal analgesia, viz.: Freeman Allen, Kroenig, Sellheim, Babeock, De-

laup, Gwathmey, Gellhorn, Waugh and Lane, Robins, Rickett, and as is shown by the works of Tuffier, Bier, Jonnesco, Ryall, McGavin and O'Leary, each and all of these strongly insist that the failure of spinal analgesia is in a majority of cases caused by the technic of the anesthetist rather than the agent itself. We must not forget the efforts in producing the desired results of Drs. Tate and Morton of San Francisco and Chaput of France. Dr. Thompson, in the *Journal of Association of Military Surgeons*, writes as follows: "Tropacocain spinal analgesia has its place in military surgery, especially field work, and in time of war, because it offers the following advantages: First, it obviates the necessity for the storage and transportation of the bulk of general anesthetics; second, it is much more economical than general anesthetics; third, the immense saving of time and attention in its administration; fourth, the saving in operating personnel, dispensing with the necessity of anesthetizers; in the saving in the number of attendants of individual patients; after operation under spinal anesthesia the patient does not require such attention as under general anesthesia; sixth, the saving of a number of bearers, under spinal anesthesia patients are much more able to assist themselves; seventh, its employment on the field of battle at dressing stations, ambulance stations, etc., must be the means of relieving much suffering, as well as a prevention of shock from pain, and at the same time render the wounded man better able to assist himself to reach the field hospital."

To my mind spinal analgesia has its place in conservative surgery; that cannot be gained by the most enthusiastic advocates of ether, chloroform and others of this character. There are so few cases where it is contraindicated, and so many places where ether and other general anesthetics are absolutely forbidden and contraindicated, as in arteriosclerosis, chronic kidney trouble, endocarditis, general septic conditions.

I have not had individually as many as a hundred cases of spinal analgesia, but have had several. In a few cases in which I used spinal analgesia I could have used ether or chloroform as well, but I wish to report four cases that I believe it would have been impossible to have used ether or chloroform or anything else of this nature as an anesthetic without fatal results to the patient. Two of them were with my partner and Dr. J. B. Wharton, who are here to correct this statement as they see fit.

Case No. 1.—B——, age about 17 years, white, was engaged at the time driving a team hauling logs. A tenderness developed in the right ankle, which after a few days was

thought to be rheumatism, and was treated for such, but swelling, pain and fever increasing, came to his home from Louisiana, and there called my partner, Dr. S. E. Thompson, to see him. By instructions of Dr. Thompson, the father brought the boy to El Dorado. Dr. Thompson and I together, on examination, decided that there was a necrosis of the fibula at the ankle joint, with a possibility of involvement of ankle and foot. On this decision we proceeded, under chloroform as an anesthetic, to operate, and found the fibula so involved, extending even to the knee joint, that it was necessary to entirely remove it. The patient, to begin with, was thoroughly septic and very anemic; this condition grew worse until we were convinced that to save his life something further should be done. On examination we found that an amputation would be necessary, but on account of his extreme condition he could not withstand the shock of an amputation above the knee, which was necessary to remove bone and tissue involved, so we used spinal analgesia, 2 per cent cocain, and adrenalin chlorid one dram to the ounce, and on account of the extreme weakened condition and weakened condition of the heart's action we were morally sure that he could not be given ether or chloroform. The amputation was at the joint, disarticulating the tibia at the knee, cutting the soft parts on it; this was done to save as much shock as possible. The operation was performed; the boy was put to bed with strychnia hypodermically with no further trouble. He steadily improved, gained strength, and in three weeks conditions were such that we did the second amputation and the lower third of femur under chloroform anesthetic; in spite of all we did for him he got well, now has an artificial limb and is hauling cross-ties.

Case No. 2.—M——, age about 70 years, negro; in attempting to go from the home of some of his family to the home of a neighbor, late in the evening, while the ground was covered with sleet and snow, became lost, and lay out in the snow and sleet for that night; a few days later he was brought to my office, both feet and legs very much swollen, one hand in same condition, and all three members with more or less gangrene. The heart was found with valvular lesion and very much enlarged; urine showed chronic interstitial nephritis. Deciding that his condition was so extreme and the organic involvement of the heart and kidneys so pronounced that it would be certain death to attempt the use of chloroform or ether, I used a 2 per cent solution of cocain for spinal anesthesia, amputated both feet, separating the bones of the foot, leaving the os calcis and astragalus,

and the first two fingers of the right hand at the third joint, eurenting several patches of gangrene on the other hand; the work was finished without trouble, he was put in a wagon and hauled four miles to his home and was brought back in the same way daily for several days until the wounds healed; recovered from the condition, but died from pneumonia in about one month after his wounds had healed.

Case No. 3.—M—, 72 years of age, negro; was laborer at a sawmill and had suffered with hemorrhoids. This was a case in which there was not enough organic trouble to have prevented the use of ether or chloroform, but as I had no professional help I felt safer in the use of spinal analgesia that no trouble would result. Patient had an uneventful recovery.

Case No. 4.—Mrs. L—, age 77 years, widow, no children, gout diathesis. Saw this case with Dr. Wharton about eight miles north of El Dorado. On examination found both feet and legs enlarged and swollen above the knees, all joints enlarged and tender and toes overriding each other, soles of feet covered with bunions. The left foot and toes were in a broken-down and sloughing condition, due to senile gangrene, extending over the greater portion of the foot. The patient was brought to El Dorado, and next day, under spinal anesthesia, using cocaine 2 per cent in adrenalin solution one dram to the ounce, we made our incision just above the line of gangrene demarcation, removing the entire foot, with the exception of the os calcis; we made a flap out of the sole of the foot, using the heel as a cushion; the bones were found to be soft and yellow; we used the ordinary dressing for about three weeks. Patient recovered, suffered a shock at the time of the operation and lived for fourteen months, dying from chronic interstitial nephritis.

The particular details in all these cases I feel it unnecessary to make known to you.

The technic in the use of spinal analgesia is generally understood and agreed on by all who are authority on the subject; however, I am a strong believer in Dr. C. W. Allen's idea in this particular, which is to use the fluid containing the drug, giving this specific gravity heavier than the spinal fluid, and regulating the parts of anesthesia by the position you place your patient in, thereby avoiding the high spinal puncture, as advocated by some authorities. I believe that Dr. Delaup's experience in the one fatal case in the 1,239 as reported is wholesome argument for this theory.

DISCUSSION.

Dr. S. J. Wolferman (Fort Smith)—Dr. Hilton has taken a pretty bold stand. Whenever you say "spinal analgesia" to surgeons they immediately jump on you; immediately they say: "You are trying to slip something over us." Dr. Hilton has given you statistics on this subject. There are only a couple of points I would like to add. If spinal analgesia is indicated in those cases where you cannot use ether or you cannot use chloroform, then why isn't it the operative procedure of election? I believe it is becoming more that way each day. It is an actual fact that Sellheim reported a thousand cases, with one death, and Doderlein had 2,500 cases, with no fatalities at all. Various authorities have reported between 7 and 13 per cent failures with anesthesia. If you want to see its real success, take the post-operative results. The doctor operates on a case and turns it over to the nurse, and maybe sees it the next morning. Your nurse will tell you invariably that the patient vomits less, that they do not have the distention, and there is less post-operative pain. The general post-operative record is better. Just another point. It is possible and has been suggested that if we accept Dr. Crile's block system of anoci-association, and we can rule out the emotional factor, the technic being a little different from Dr. Hilton's, then we have a complete nerve block, a complete anoci-association by blocking the spinal cord. The whole thing is technic, and I think our technic is a little different from Dr. Hilton's. We were afraid of cocaine, and afraid of tropacocain. We use Gellhorn novacain. The work we do is that reported by George Gellhorn of St. Louis. I was working with him at the time. Then he used a 10 per cent novacain solution put up by the Farbruerke-Hoechst Company. They discontinued making that, because they did not know just what strength it was. They said it wasn't staple, so he didn't know just what solution to use. So Dr. Gellhorn went back to using their tablets with a 5 per cent solution. The best technic, I think, one which is getting the best results, is to take your patient the day before and give large doses of bromid. In the morning, just before the operation, give one-fourth grain of morphin, and make the spinal puncture with the patient in a sitting position. I use in this 3 c. c. of novacain of a 5 per cent solution. I allow a little fluid to escape and then allow the fluid to come up in the syringe, diluting the novacain, and put it all back. Right there, if you will allow your patient to sit up a few minutes with the novacain in that position, that completely blocks locally the spinal cord at the puncture between the third and fourth lumbar, and you then have a complete nerve block.

I was talking to Dr. Gellhorn in St. Louis just two weeks ago. He is giving his patients a cup of coffee just before the operation. It seems to stop vomiting. It stimulates them and they don't have any trouble with it.

Dr. Hilton (essayist)—I have nothing else to say. I feel just as confident that the time is coming as Dr. Wolferman referred to, that there will be cases by selection where it will be used. I believe that its use in the future is going to be forced on the progressive men, because they have always been in a receptive mood. As to the novacain, I feel that it is the better preparation. Dr. Allen of New Orleans convinced me, but I had never used it, and only referred to those things that I had used. I would now use the adrenalin preparation. I am convinced that it is really not the right or proper solution to use, but I believe that if any

man will go and be with Delaup of New Orleans and see the work he performs there daily, and step next door and see the work there daily done under a general anesthetic, you will be forced to accept the fact that spinal analgesia has a place and it must and will be recognized in the future.

THE NASAL SEPTUM.*

By Robert Caldwell, M. D.,
Little Rock.

There was a time when nasal surgery occupied itself with operations mostly confined to the turbinate bodies. Today nasal surgeons are devoting most of their work to the septum.

The septum is the middle partition of the nose, the inner wall of each naris, the partition that separates one naris from the other. It is composed of the perpendicular plate of the ethmoid, vomer and triangular cartilage. To be more exact, we may say it also is composed of the crest of the nasal bones, of the nasal spines of the frontal, rostrum of ethmoid, crest of the sphenoid, crest of the superior maxilla and palate bones. The latter of these are of very much importance in our septal operations, as where it joins the cartilage is the place we often see decided deflections, and the ones that are hard to correct.

Our knowledge of the etiology of septal deflections is comparable to our knowledge of the cause of certain other diseases which we cannot positively give. There have been many chapters written on this subject, and I doubt not that much will be written in the future. From close observation and what others have written, there is no doubt in my mind that there are several factors that are adjuncts in the production of septal deflections.

Ballinger, after discussing excessive development of the vomer as a factor, the high or Gothic arch as a factor, heredity as a factor, faulty development of the facial bones as a factor, and traumatism as a factor, concludes by saying there are two paramount etiological factors of septal deflections: (1) Neurosis or stigmata of degeneracy, which cause either an arrest or an excessive development of the bones of the face, including the nose (Talbot) (or better say, due to an inco-ordination in the development of the bones of the face, including the septum). (2) Traumatic hypothesis is true in a certain number of cases (Bosworth).

And especially is traumatism responsible for a great number of the cartilagenous deflections that a great many times obstruct the vestibule of the nose.

I must not dismiss the subject of etiology without saying a few more words about the arch of the mouth and teeth. We see the high arch as a complication of deflected septums so much that some authorities have given it as the cause. I will not discuss that feature particularly, but wish to say that in a great many of the high arch cases we not only have a deflected septum, but have a drawing in toward the median line of the angles of the superior maxillary bones, so that the roof of the mouth is not only arched but narrow. Since the bones of the roof of the mouth form the floor of the nose, we can readily see that a narrow palate will be accompanied by a narrow naris.

Now, even if we do correct that septal condition, we will have remaining a narrow nose, with an arched floor that may be sufficient in extent to obstruct free nasal respiration, in which case our patient will not feel that we have sufficiently benefited him by our surgery. Modern dentists today are offering us hope in these malformed cases, and in this type of Gothic arch deflections we should work in conjunction with efficient dentists.

Some of the dentists claim that the shape of the arch causes adenoids, a claim not exactly concurred in by our profession.

The symptoms that bring the patient to the rhinologist may be subdivided into four divisions:

1. One patient because he cannot breathe through the nose; respiratory symptoms.

2. Another comes because the stopping up of the outlet of the sinuses interferes with drainage from the sinuses; sinus symptoms.

3. Another comes on account of an ear trouble, which we think in some cases is due to a deflected septum.

4. And last, but not least, a patient comes, complaining of sneezing, hay fever or asthma, where we find a contact space in the nose that we oftentimes prove is responsible for the neurosis, neurosis symptoms.

The deflection that causes respiratory symptoms may be located at any part of the septum, provided said deflection or spur is of sufficient gravity to interfere with the free passage of air through the nose. It may be a large spur far back, a cartilagenous deflection anteriorly, or a large ridge near or at the middle of the septum, or all three together, or any combination of them. From an obstructive standpoint the same conditions may be produced by a polypus, hyperplastic, hypertrophic or intumescent rhinitis.

The deflections that cause sinus symptoms are located high; oftentimes he can barely see the middle turbinate, or the deflection is such that it hides the middle turbinate from view; on account of the openings from the sinuses being either to the outside or inside of the

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middle turbinate, one can readily see the significance of a deflection that will push against the middle turbinate and occlude these drainage canals. Here we may meet our acute and chronic catarrhal sinusitis, also our acute and chronic suppurative sinusitis.

These are the deflections that oftentimes cause headache and asthenopic symptoms, either from the pressure or the interference to drainage from the sinuses. They may cause frontal headaches, more severe on awakening in the morning, as in distinction to an ocular headache, which occurs during the day when using the eyes. Dizziness or vertigo are sometimes direct expressions of inflammation or irritations in the sinuses due to a high deflection.

The deflections that we oftentimes think cause ear trouble are not of so much significance as to their exact location *per se*, but only as regards the influence they have in nasal respirations, drainage and congestion.

Our results for operations for ear trouble are not as flattering as for other conditions; therefore, I am very reticent about operations on the nose for any pathological ear condition, unless there are other symptoms showing an operation is indicated, which we can truly say is present in a goodly number of cases.

The deflections that cause the so-called reflex neurotic symptoms may be located most anywhere, but of especial significance are those deflections in the region of the middle turbinate body, and anteriorly to the anterior end of the middle turbinate body, where the deflected septum lies in contact with the outer wall of the nose, or the middle turbinate; true, a spur far back may cause a cough, or asthmatic conditions, but I find this other deflection especially significant in my asthmatic and hay fever symptoms. I have demonstrated in my office time and time again that an irritation of the posterior end of the inferior and middle turbinate and posterior inferior two-thirds of the septum may not cause sneezing, but let me touch the superior part of the septum anteriorly, or in fact, come between it and the outer wall of the nose high up anteriorly, and immediately I have a sneeze.

Any septal deflection may contribute to a catarrhal condition of the nose, as high deflection by the irritating effect on the sinuses may cause a watery discharge, while the low deflection by these interferences with drainage may cause the thick, heavy, tenaceous secretion.

But nasal catarrh is usually present, and experience has taught me that very few cases of catarrh are cured by a septal operation alone.

The variety of septal deflection is infinite, and although some authors attempt a classification, no two cases are exactly alike; as a result, no definite rule can be laid down for their recognition or correction, each case being a law unto itself.

Our diagnosis in these cases will have to be made from an examination of the nose, plus the symptoms of which the patient complains. A polypoid condition we will readily recognize; an intumescent, hypertrophic or hyperplastic rhinitis will show an involvement of the turbinates, so our diagnosis, all in all, is fairly easy. But deviations of the septum should never be corrected simply because they are departures from the median line of the nose, but only when they obstruct ventilation, drainage, interfere with the function of the turbinates or cause reflex symptoms that we have cause to believe are due to a contact space in the nose, or ear symptoms; and I am very slow about operating for an ear condition unless I have some of the other symptoms above enumerated, as we must be careful what we say to these cases before operation so as to protect ourselves in the future.

As regards treatment in these cases, it is practically all surgical, and I will not go into it in detail. Will say that if I have an almost straight septum, with a projection low down in front, I oftentimes use the saw and remove it in that way, after I have elevated the mucous membrane, then replace the mucous membrane; otherwise I am a strong advocate of the submucous resection, as done by Ballinger, yet every case will present some little difference from another, and I have to alter my technic to suit each case. A thorough description of the submucous resection would occupy a chapter itself, and I will try only to give you some idea of how it is done. The advantages of this operation are that we leave a very small area of the operated surface to be scarred over, and when we have a very thick septum the removal of the cartilage and bone is the only way to get sufficient room for breathing. The dangers are that we may have a perforated septum, or in rare instances there has been a falling in of the end of the nose, a very sad condition indeed. Perfected technic will overcome the first, and clean surgery and good judgment about leaving the upper and anterior part of the cartilage will dispel most of the dangers of the latter.

DISCUSSION.

Dr. J. F. Rowland (Hot Springs)—The essayist has presented a paper on a subject that has been of great interest to the rhinologist. He has discussed symptoms, causations and the operation on a condition that has rescued the rhinologist from errors for the past twenty-five years. I think there is no sub-

ject in which we are more concerned than the subject the essayist has presented to us. The stenosis that has existed in these conditions and that the rhinologist has tried to eliminate, has been almost a complete failure until the subject of the submucous operation introduced by Dr. Killian. The wholesale sacrifice in years gone by of the turbinates for this stenosis, I think, was a mistake. In the sacrifice of the turbinates you destroy a great deal of the function of the nose, producing a catarrhal condition of the throat and dryness and will establish a greater trouble than the original which you tried to correct. The doctor has covered the entire subject completely in his paper and there is little I can add in the discussion.

Dr. Caldwell (essayist)—I have very little more to say. There is only one thing I want to call attention to, and that is the importance of those deflections right along in here (indicating), I have an old lady, 65 years old, whom I was called to see not long ago, who said she had hay fever. She stepped off a street car one day, fell down and hit her nose on a cross-tie and had hay fever symptoms ever since. The left side of the nose was lying in contact with or just touching the septum, and there was a tickling all the time. The nose got a little stopped up, began to irritate and tickle and she began to sneeze. She did not have any hay fever. That's the reason I used the words "hay fever symptoms" instead of hay fever. Some of her people objected to an operation on account of her old age. I made a submucous section and took all the cartilage out up beyond here (indicating), and she has had absolutely no trouble since. There is hay fever that comes along in August that the text books write about where there may be no contact space between the septum and the wall of the nose at all. I am not going to operate on those cases. The cases that come to me to be treated during the hay fever season I let go until the hay fever season is past, then I have them come back and I examine the nose to see whether they really have a contact space. But the patient who is always sneezing any time of the year, winter or summer, is entitled to a thorough examination of his nose to see if his septum is pressing against the turbinates. Of course, there are other causes of hay fever symptoms besides the septum, but we haven't time to take that up.

METASTATIC INFECTIONS.*

By Benjamin D. Luck, M. D.,
Pine Bluff.

For a long time the medical profession has been trying to get away from the terms, "rheumatism" and "acute rheumatic fever," knowing full well that they are terms which do not signify anything, and which we use to designate conditions, the etiology of which we do not definitely understand. During one of my visits to Dr. Murphy's clinic, I heard him express his views on the theory of infection in joints, and it impressed me so favorably that I have given it considerable thought, and while my experience has been limited, I have looked upon every arthritic involvement since that time as being caused

by an infective agent, and have tried to trace its origin, as well as the infective agent. There seems to be no doubt that in a large per cent of the cases this can be done, and although the specific organism cannot be demonstrated every time, because it is not always present in the joint, yet the clinical history and the regularity of the so-called metastatic period and the influence of the bacterins in certain cases all point to the infective nature of the disease. Considerable research work has been done along these lines by numerous investigators, and anything quoted in this paper must not be construed as being original, but as information gleaned from literature on the subject, with its application in a medium general practice.

Osler gives as a definition of acute rheumatic fever, "an acute infection dependent upon some unknown infective agent, and characterized by multiple arthritis and a marked tendency to inflammation of the endocardium of the valves of the heart. The disease has many features suggestive of septic infection. The mode of involvement (ushered in suddenly, sometimes with a chill), the character of the fever, the tendency to relapses, the sweats, the blood changes (anemia and leucocytosis), and above all, the great liability to endocarditis and to involvement of the serous surfaces are a line of symptoms strongly suggestive of pyemia."

Murphy says: "It is my conviction that every type of non-traumatic joint inflammation is a metastatic manifestation of a primary infection in some other portion of the body. It is my further conviction that there is no idiopathic rheumatic arthritis any more than there is an idiopathic peritonitis." Looked at from this viewpoint, metastatic arthritis is a surgical disease and should be treated as such to prevent the ankylosis which so often take place, and its ugly deformities. The reason we have not recognized the primary infections as the causative factor in secondary arthritides is because there is an interval of time, varying in different infections, between the time of the original infection and the arthritis, and we fail to connect the one as the cause, or the other as the effect.

Metastatic infections in joints may occur from a variety of primary infections. Infections of the nose, pharynx, tonsils, skin, gall bladder, typhoid ulcer, urethra and the acute infectious diseases are the most frequent etiological factors in joint involvement, without reference to syphilis or tuberculosis. The relation of so-called rheumatism to tonsillitis has long been recognized. We now know that it is a metastatic infection transmitted to the joint through the blood and lymph

*Read by title in the Section on Surgery of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

stream of micro-organisms from an infected tonsil. The same is true of infections of the skin, as furunculosis and carbunculosis. The relation of secondary joint involvement from specific urethritis cannot be denied, because the causative organism has been demonstrated in the fluid aspirated from the joint.

Investigators who have closely watched the case histories of patients who come under their observation with arthritis or late ankylosis have noticed the regularity of the interval from the time of the original infection until the joint manifestation, and it has occurred so regularly that we are beginning to know just when to anticipate the secondary infection. There are required a definite number of days for different micro-organisms to metastasize in the joints. Just why, we do not know, nor do we know why it does not take place in the height of the disease, instead of its recrudescences. We know the average number of days it requires in most of the infections. For instance, gonorrheal arthritis does not occur until eighteen to twenty-two days after the primary urethral, ocular or vaginal infection, or a secondary exacerbation of the same. I am treating a young man now who had had chronic urethritis for a year or more, but exactly twenty days after an acute exacerbation precipitated by passage of sounds he developed a metastatic gonorrheal arthritis. In influenza it occurs from the tenth to fourteenth day. Furuncular infections, usually due to the staphylococcus, show metastatic in nine to eleven days. Streptococcic infections can cause metastatic arthritis in forty-eight to seventy-two hours. The arthritic infections due to scarlatina usually occur from the fourth to the sixth day after the onset of the symptoms. So that in the course of one of the above infections, we know at about what stage of the disease to look for metastatic infections in the joints. In contrast with these short periods we have the late manifestations, as occur from the ulcers in typhoid fever, which is usually from the fourth to eighth week, and the slow, gradual involvement of joints, due to a low type of inflammation in the intestinal tract.

Acute arthritides from a surgical standpoint may be divided into: First, the mono-, bi- and tri-articular types, with the source of infection easily demonstrated, and, second, the poly-articular type, of unknown or doubtful origin. The first class are usually initiated with a chill, coming after a definite length of time, depending on the original infection, with articular and muscular pains, and in twenty-four to thirty-six hours pain and swelling in one or more joints. If the joint involvement is ushered in with a chill, that means that there is a virulent infection,

and left alone there will be destruction of that joint and probably ankylosis. In the poly-articular variety, it is rarely initiated with a chill, and that means that the type of infection is less virulent and there is less danger of destruction of the joint. So-called rheumatoid arthritis and arthritis deformans are evidently a slow, contracting form of arthritic involvement, due to a metastatic infection of very mild virulence from some of the organisms of the colon group, or from gall bladder infection, from a low type of inflammation of the large intestine or from pyorrhea or some other chronic infection.

We have mentioned some of the most frequent etiological factors in the production of metastatic arthritis; now a word as to the pathology of the involved joint, which makes us better understand the treatment. There are only two tissues in and at the joint that are the seats of primary infection, and these are the synovial membrane and the bone. The infection is carried to the joint through the blood and lymph stream and lodged in the capillary and lymph layers of the synovial membrane, beneath the endothelial layer, and not on the surface, and that accounts for the absence so many times of the specific organism in fluid aspirated from the joint. The cartilage and the capsule are never the seats of primary infection. The effusion in the joint causes tension, which in turn causes a hindrance to the blood supply, and finally there is destruction of the joint cartilages, with a resulting ankylosis. We have two kinds of pressure to contend with in a joint with effusion, the intra-articular, due to the retained infective products under high tension in a nonelastic capsule, which can stand many pounds of pressure without bursting, and muscular contraction, which tends to press the joint surfaces together and accounts for the ankylosis taking place at various angles, if extension is not applied sufficient to overcome it.

The treatment, as outlined by Murphy, is prophylaxis; not prophylaxis so far as infection in the joint is concerned, although the proper management of the acute infection, avoiding cold, exposure and getting up too soon, might lessen its frequency, but prophylaxis of ankylosis of the joint or joints. Realizing the tension in the joint and the pressure necrosis which must result from it and the muscular contraction which the patient involuntarily gives, it seems that it naturally follows that extension sufficient to separate the joint surfaces is indicated. I do know that in a recent case in which there was considerable swelling and pain that as soon as a Buck's extension was applied, he got immediate relief from pain. The weight to be used depends upon the joint involved,

of course, but should be sufficient to overcome muscular contraction, and thereby separate the joint surfaces. The next step would be to relieve the intra-articular tension by aspirating the fluid from within the joint cavity. This fluid is composed of the accumulated products of infection, and the virulence of that inflammation can be lessened by injecting in its place a fluid which will be a poor culture medium for the micro-organisms, or if they have already gained access to the joint cavity, it will help to sterilize the fluid. Dr. Murphy injects 10 to 15 c. c. of a 2 per cent solution of formalin in glycerin, mixed twenty-four hours before using, and reaspirates the joint and reinjects the fluid every second or third day until the lymph spaces in the synovial membrane are closed, thereby preventing absorption, then the cavity rapidly becomes sterile, the swelling should as rapidly subside, and the extension prevents the ankylosis.

I have said nothing of the value of the bacterins in the management of joint disease due to a metastatic infection from a known infective agent. It is a broad subject, and I am free to confess that my knowledge of it is limited. I have used it in gonorrheal arthritis and in other instances with varying degrees of success. I believe that there is more to it than we have yet determined, and I also believe that the day will come when, after we have decided upon the definite causative organism and determined the dose for the individual patient, probably from a method not unlike Wright's opsonic index, that then we can give vaccine or serum, as the case may be, with the expectation of accomplishing some definite purpose. It is right in principle. Whether you use vaccine or serum you introduce into or stimulate in the blood stream antibodies to increase the opsonins, which combine with the bacteria and prepare them for destruction by the phagocytes. Clinically, we see reports which are very encouraging, and if the advancement in the future brings forth information along the lines of vaccine therapy which will yield results in any proportion to that we are accomplishing daily with diphtheria antitoxin, typhoid and tetanus prophylaxis, we will have made another rapid stride in the alleviation of suffering and the cure and prevention of disease.

He who ignores the meetings of his local and State organization is headed for the pool of stagnation as sure as fate. Such a person will soon find his practice drifting to his more progressive neighbor. He will soon be stranded upon the "Island of A-Has-Been," and the rut in which he has traveled will be

too deep for him to turn out. Time is yet yours to avert such a catastrophe if you will but participate in the work of the organized profession and regularly attend its meetings.

INJURIES TO THE SKULL AND BRAIN, WITH REPORT OF CASES.*

By William A. Snodgrass, M. D.,
Little Rock.

The function of the skull is so largely limited to mechanical protection of the brain and its membranes from external violence that its fracture *per se*, unassociated with injuries to the brain and its appendages (membranes and blood vessels), interferes but little with the normal functions of the individual who has it. The line of fracture soon heals and the structures return to a normal condition.

Injuries to structures within the cranial cavity incident to fractures of the cranium are of great importance and require the most perfect diagnostic skill. The experiments of Brocha, Gower, Burdach, Horsterly, Keen and others have made the subject of cerebral topography quite clear. Knowing the brain centers which control a given function of some part of the body enables us to diagnose conditions involving regions of the brain that could not be treated successfully by any surgical method, if we were unfamiliar with cerebral topography. The centers which preside over the function of skeletal muscles (motor centers), centers for hearing, vision, speech, smell; also the center for such vital functions as respiration and the action of the heart are well known.

The surgeon who attempts to treat brain lesions should possess an accurate knowledge of the anatomy and functions of the parts involved. First he should adopt some simple method of outlining on the surface of the scalp the more important brain centers situated within the skull beneath. There are six important landmarks that can be used, namely: the great longitudinal sinus, the two lateral sinuses, the fissure of Rolando, the fissure of Sylvius and the anterior border of the middle fossa of the skull, the surface markings of which are the base of the zygoma of the temporal bone.

The skull can be divided into two lateral halves by the longitudinal sinus, which extends from the cristagalli of the ethmoid bone and passes backward along the attached border of the falx cerebri, to terminate at the internal occipital protuberance.

*Read by title in the Section on Surgery of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

Each lateral half of the skull cavity can be divided into the supra- and infra-tentorial regions by a line which marks the external attachment of the tentorium cerebelli; in other words, by the line of the lateral sinus, which can be accurately located on the scalp by a line drawn from the occipital protuberance to the upper and posterior part of the mastoid process of the temporal bone.

The cerebellum lies wholly beneath the tentorium cerebelli. When operations are attempted involving the cerebellum, it is obvious that the openings in the skull for exposure should lie below the line of the lateral sinus. The simplest method of locating the fissure of Rolando on the surface of the scalp is by using a square sheet of paper, after the method of Chiene of Edinburgh, or by the use of Corsley's cytometer, which consists of a metal strip sixteen inches long, with an attached strip one-half inch from the center, with a gauge attached in such a way that the degree of the angles can be made at 67 degrees.

The sylvian fissure can be located by a line drawn from the external angular process of the frontal bone to the posterior fontanelle, beginning one inch from the external angle of the frontal bone, and the line will pass along the course of the sylvian fissure.

In treating head injuries it is always important to have a competent observer watch the patient and keep a record of the changes that take place during the first few hours after receipt of injury. If the symptoms do not improve after twenty-four hours you may assure yourself that you are dealing with a gross brain lesion and not a concussion. I will not burden your patience with symptoms objective and subjective. I will report a few cases which will include this part of the subject. It is needless to tell you that all brain injuries must be handled under the most strict aseptic precautions, after being thoroughly aseptized by some one competent to cleanse the scalp.

My method is first wash and shave the head, using plenty of soap, then wash the scalp with a piece of gauze and gasoline, dry the scalp and rinse off with alcohol, then paint the scalp with 3 per cent solution of iodine in alcohol; when the iodine is dry, apply your scalp tourniquet and protectives for the eyes. I always use rubber gloves and require my assistants to use them when operating within the skull or brain.

Case No. 1.—J. B., age 38, well-developed farmer was shot November 17 with a .38 Winchester rifle, using a common lead bullet. The ball entered the occipital bone just above and to the right of the occipital protuberance, ranging upward and slightly to the right side.

I did not see this case until April, five months after he was shot. His condition when I saw him was a fairly well-nourished man, with motor paralysis of the left leg and arm, vision very much impaired, mind clear, reasoning power good. He had had repeated epileptic seizures, averaging about three per day. When I saw him the convulsive movements always started first in the extensor muscles of the paralyzed leg, gradually involving the entire muscular system. These attacks were followed by a period of unconsciousness, lasting 30 to 40 minutes. He had control of his bladder and bowels. A small scar was visible in the back of his head, where the bullet entered as described. I trephined and made a small osteoplastic flap from the parietal and temporal bones over the fissure of Rolando. On the right side of his head I found a slight intra-cranial pressure. When the bone was removed the membranes looked normal. I opened the dura and explored the brain sulci with a small needle. I found the bullet deeply situated in the brain posterior to the fissure of Rolando. I followed the needle down by an incision and removed the bullet with forceps, closed the wound with a small rubber drainage. His convulsions ceased, the scalp wound and osteoplastic flap healed with a slight bulging (cerebral hernia). His general condition improved for about six weeks. He then began to decline rapidly in strength and died a few days later, following a pulmonary hemorrhage.

Case No. 2.—Fred W., age 18 months, fell from a second-story back porch, a distance of sixteen feet, landing on the left side of his head over the region of the parietal prominence. He was carried into the house, and after crying a few minutes, went to sleep. Four hours later I saw him. He was profoundly unconscious, left pupil larger than the right. It did not react to light, and the right pupil showed a slight reaction. Both motion and sensation were lost in the right arm and leg. There was an oedematous spot on the left side of the head. The face was slightly swollen in the region of the left eye. There was no break in the scalp. I sent him to the hospital and opened the scalp. Immediately I found the bone driven in, pressing on the brain just behind the fissure of Rolando. I made a small trephine opening and elevated the skull by the use of a small cranial elevator. I did not find any evidence of a clot beneath the membranes; the membranes of the brain were not disturbed. After ten days the paralysis gradually disappeared. This child made a complete recovery and is now normal. He has perfect use of his arm and leg, plays ball with other boys, using his right hand in throwing.

Case No. 3.—N. H., age 4, fell from a second-story window a distance of eighteen feet, landing on her head. She was picked up and carried into the house unconscious; her pupils were widely dilated, breathing slow and labored. Her family physician was called. He thought she would die in a short time and made no special effort towards her relief. As she did not die, I was called in consultation six hours after the injury. I found a well-nourished girl child, with a greatly swollen face and scalp. You could not open the eyelids to test the reflexes; breathing, 12 to minute, pulse 56. There was no wound in the scalp. By palpation you could feel a large blood clot under the scalp over the left parietal bone, extending over the frontal bone down into the orbital cavity. There was marked muscular rigidity of both arms and legs. I had her moved to the hospital immediately. Her head and scalp were prepared according to the method previously described in this paper. A long incision was made over the left parietal region, and a cross incision made over the top of her head. I found a line of fracture extending from the parietal occipital suture through the parietal bone into the frontal bone, well around to the glabella, branching downward into the supra-orbital plate of the frontal bone. The line extended fully half way around her head. There was a piece of the parietal bone two and one-half inches long and one-quarter inch wide broken completely off from the main bone, pressing on the brain. The membranes were ruptured; a large clot was removed, this loose chip of bone was taken out and not replaced; the wound was closed with a silk worm gut. No anesthetic was used. She was profoundly unconscious. For ten days she was nourished by nasal feeding, being unable to swallow. The muscular rigidity gradually subsided; she regained the use of her arms and legs in about three weeks. In five weeks she could walk and understand words spoken to her, but could not utter a sound. After three months we began a systematic course of teaching her to talk. In five months her recovery was complete and she has remained well since.

Case No. 4.—E. H., 22 months old, fell through an elevator shaft forty-seven feet, landing on a plank floor. The force of the fall seemed to be on the right side of the frontal bone. She was picked up unconscious and put to bed. I saw her the next day. I found a well-nourished girl child, with complete motor and sensory paralysis of the left leg and the left arm. Below the elbow the tricept muscle and the deltoid still had contractile power. I wanted to operate on the

child at once; but an operation was refused, and has never been done. Two years have elapsed, with no improvement in the paralysis. She has never been able to walk or use the hand.

Case No. 5.—J. B., age 53, a farmer, had suffered for twelve years with facial neuralgia; his pain became so great that he was kept from attending to his business. Had been given morphine until he had acquired the habit; had been cured of it, and acquired it again. Every method of injecting the nerve had been tried, with only temporary relief. He expressed a desire to be relieved of the pain or given something to destroy him. January 11, 1914, I removed the Gasserian ganglion, after the method of Kocher, without ligating the internal carotid artery; closed the wound with drainage. The patient's recovery after the primary shock was uneventful. I have a letter from him dated May 1, 1914, three and a half months after the operation. He says he is entirely free from pain and can do more work than he has done for twenty years, and that his vision is only slightly impaired.

WANTED—Five thousand Christian Scientists, osteopaths, chiropractors, vitapaths, neuropaths, spinologists, mental healers, and representatives of any other class of incompetents who are pretending to care for the sick and suffering, to go to Europe and serve in the army hospitals or as physicians on the field of battle! Such an advertisement might, with all propriety, be sent out by the American Red Cross Association or by the medical and surgical departments of the various European countries that are now at war, were it not known that these pseudo-doctors are of no use whatever when it comes down to the real test of caring for stricken humanity. When the people are ravaged by pestilential diseases or the terrible destructiveness of war, they cry out in their need for real doctors, who have been thoroughly educated and trained in all of the branches of medicine and surgery. They want none of the pretenders, with their limited knowledge and still more limited skill, who, in ordinary times ply their vocation with no little pecuniary profit and in the majority of instances with little or no benefit to humanity. It would seem that the lesson might be turned to profit and that the public would begin to recognize the necessity of demanding competency in those who are to offer their services in treating the ills of mankind. —Indiana Medical Journal.

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Anonymous communications will not appear in the columns of this Journal, no matter how meritorious they may be.

Editorials.

WHY NOT TRY OUR HOME SPAS?

This year, at least, American dollars will not be spent at the healing springs of Weisbaden, Baden-Baden, Carlsbad and the other spas of Europe, at which, it is estimated, the enormous sum of \$80,000,000.00 is spent annually by Americans. How truly the inspired writer wrote in the words, "A prophet is not without honor save in his own country."

The adage applies not only to prophets, but to things in general. Distance seems to lend a glamor which the home product does not possess. Every city and town in America suffers from this obsession that things away off are better than those at home. The merchant feels it in loss of trade which goes to catalogue houses. The rich man will send away for his decorators and furnishers to ornament his house when he could be as well suited at home; fashionable women in the smaller cities send to New York for gowns and hats; New York women send to Paris for theirs. The same thing obtains in nearly everything. It is always that, "Can any good thing come out of Nazareth?"

People cannot go to the European spas this year for obvious reasons. But why should they ever need to go, if they go to seek health alone? The medical and mineral springs of America have all the healing qualities possessed by the most famous health resorts abroad. It is generally conceded now that

it is the radioactive properties of many of the most famous springs that are curative. This, of course, has only been known since the discovery of the marvelous properties of that rare mineral. Before that time the analysis of many waters did not quite explain the cures effected, and the results remained a mystery.

It is not generally known, perhaps, that forty-eight of the springs at Hot Springs possess radioactivity. It is also not realized by many that statistics carefully compiled show that 90 per cent of all patients visiting the springs for treatment have left there cured or benefited.

There are other healing springs in various parts of the country, but Hot Springs has the advantage of a salubrious climate and equable temperature. There are few days in the year when the weather is too inclement to take the air, and the essentials of outdoor exercise, diet and recreation are strongly accessory to the treatment. Hot Springs has all these things, together with romantic scenery, social pleasures, good society and every factor that combines with the curative waters to at once benefit the patient physically and give the needed relaxation.

The springs belong to the people of the United States, and not to any corporation or syndicate. The Hot Springs reservation is under government control. The government list of resident physicians includes some of the most competent and cultured to be found in the United States. Baths are everywhere, pavilions equipped with drinking fountains are plentiful, the waters being piped from the mountain side and delivered by the force of gravity. There are four great hotels, each with a capacity of more than 500 guests, with bath houses in connection. There are eight hotels with a capacity each of 100 to 200; twenty, with a capacity each of fifty to 100, and thirteen with a capacity of less than fifty each. In the high-class hotels the rates vary from \$4.00 to \$8.00 per day, the next best from \$2.00 to \$3.00 per day, and from that down to \$6.00 to \$12.00 per week. Besides the hotels, there are innumerable rooming and boarding houses, where one can live as cheaply as in any city in America. It will be seen, therefore, that this great health resort, unsurpassed anywhere in the United States or Europe, is not attainable only by the rich, but by those of very slender means.

Physicians can safely recommend the famous springs to their patients, and our government protects them against extortion. While one can live in the highest style at the most costly hotels, when it comes to the baths the prices are fixed by the government, and no charge can be made in excess

of those rates. The attendance fees are also fixed by the government at \$3.00 for a course of twenty-one baths.

PAINLESS CHILDBIRTH.

Ever since the edict went forth in the early days after the creation, according to the story in Genesis, "In sorrow thou shalt bring forth children," have the women of every country and in every century sought to evade the penalty, but with no marked success.

But now comes Dr. Bernhard Kronig of the University of Freiberg, the head of the women's clinic, with the announcement that his years of study and experiment have been crowned with success, and that the pangs of parturition need have no further terror for the mothers of the human race. The treatment consists in the administration of scopolamin and narcophen, producing that "twilight sleep," in which, it is claimed, women give birth to their young in "unconscious consciousness," and without undergoing any pain. It is said farther that no ill results follow, but that, on the contrary, it has been demonstrated that children born with their mothers in the "twilight sleep" show a lower percentage of mortality in those dreaded earlier years than has heretofore been recorded.

Women from all parts of Europe have gone to Freiberg to undergo confinement since the experiments began ten years ago, and in the several thousand cases of delivery it is said that the percentage of successful deliveries is larger than in the regular maternity hospitals using only the conventional obstetrical methods.

To what extent these assertions merit credence is more or less speculative, but the matter of painless childbirth is of such paramount importance that it certainly deserves investigation.

"AM I MY BROTHER'S KEEPER?"

In the Bible story of the death of Abel at the hands of Cain, the voice of the Lord demands to know of Abel's whereabouts, and Cain's evasive answer is: "Am I my brother's keeper?"

The same shifty evasion of responsibility has been used millions of times since, but ever it is becoming less available, less forceful, less creditable. Modern medical and sanitary science have impressed on civilization the fact that one is his brother's keeper. And if one refuses to recognize this responsibility the law demands that he do so. Time was, and not so long ago, that if John Smith saw fit to keep a mosquito-breeding puddle

on his premises, together with a yard full of old cans mingled with tangled weeds, although it did not look pretty, it was nobody's business but John Smith's.

But modern science has proved that mosquito-breeding pools, garbage heaps that attract and breed flies, and other filthy conditions are disease breeders. It might well be that if the peril of John Smith's unsanitary surroundings affected only John Smith, or even John Smith's immediate family, society, as represented in the law, might continue to tolerate it. But inasmuch as John Smith's careless and uncleanly methods affect equally the cleanly families of Tom Brown and Will Jones, on either side of him, society demands that John Smith clean up—not for his own sake so much as for the welfare of others. He is recognized as his brother's keeper and is required to shoulder the responsibility. Only in thus recognizing this responsibility has the combatting of the spread of disease been made possible. To promote this warfare are quarantines established, houses posted in which are cases of contagious diseases, anti-spitting ordinances and soil pollution laws enacted, pure food laws enforced, inspection of premises authorized, and a score of other safeguards of the public health put into effect.

While many evils have been abated in the interest of the public health, much remains to be done which will never be done until the individual is imbued with a true altruism. St. Paul wrote: "I will neither eat meat nor drink wine, nor do anything whereby my brother stumbleth or is made weak." And again: "If to eat meat causeth my brother to offend, I will eat no more meat while the world stands." This is the very acme of altruistic self-abnegation. It is the golden rule in sublimated form. Here is not compulsion, but a purely voluntary determination to so live as to influence others by example, and not to lead them astray by establishing a bad precedent. St. Paul was prompted by moral influence alone. Certainly the individual should consider his responsibility toward his brother's physical health and wellbeing. We have selfish, indifferent people exposed to contagious diseases in their homes running the risk of carrying that contagion to business associates; mothers concealing the fact of measles, chicken-pox, scarlet fever and other diseases existing in their homes, and sending the well children to school, "to get them out of the way," utterly careless of results. In street cars, moving picture shows, in stores and in the streets, we find children with whooping cough, their mothers unwilling to forego their own pleasures, regardless of the danger

of spreading the disease, which may end fatally for all they know or care.

It would take too much space to enumerate the many, many ways in which, by careless exposure of garbage, lack of screening, evasion of sanitary and health laws, the spread of disease is fostered, and the work of the health authorities obstructed or set at naught. And so it will be until the people at large realize that the obligation is upon them each to be his brother's keeper.

Personals and News Items.

Dr. B. V. Powell has moved from Sayre to Reader.

Dr. S. H. Cheney of Prague has moved to Pinnacle.

Dr. G. C. Moore of Little Rock has moved to Hot Springs.

Dr. J. B. Wharton of El Dorado visited in Little Rock last month.

Dr. A. D. Shaw of Hot Springs visited in Little Rock last month.

Dr. A. L. Peacock has moved from Lynn to Pangburn.

Dr. Robert Caldwell of Little Rock has returned from the east.

Dr. C. S. Means has moved from Jenny Lind to Charleston.

Dr. E. J. Byrd of Millville has returned from a recent visit in Texas.

Dr. J. Hal Neal, Jr., of Fort Smith, visited in Little Rock last month.

Dr. A. E. Sweatland of Nacogdoches, Texas, visited in Little Rock last month.

Dr. and Mrs. P. W. Lutterloh of Jonesboro visited in Washington, D. C., last month.

Dr. and Mrs. Charles W. Dixon of Douglass visited in Little Rock last month.

Dr. J. A. Henry of Hope has returned from Chicago, where he has been doing post-graduate work.

Dr. H. H. Niehuss of El Dorado is in St. Louis taking a special course in diseases and the feeding of children.

Dr. C. D. Stevens of Magnolia has his son, Alvin, in St. Luke's Hospital, Little Rock, for surgical treatment.

Dr. Carolyn E. Geisel of Battle Creek, Mich., delivered several lectures on health and civic sanitation in Little Rock last month.

Dr. E. N. Allen, general surgeon C., R. I. and P. Railroad, Little Rock, was made vice

president of the American Association of Railway Surgeons at Chicago last month.

In order to accommodate increasing admissions, Drs. Petty and Wallace announce that they will build a larger and more complete sanitarium in Memphis.

Dr. H. H. Rightor of Helena has returned, after spending six months in New York and three months in Vienna, where he has received special instructions on the diseases of the eye, ear, nose and throat.

The Third District Medical Society, composed of Woodruff, Cross, St. Francis, Lee, Phillips, Lonoke, Arkansas, Monroe and Prairie counties, will meet November 19-20, at Forrest City.

Drs. B. H. Green, Warren; W. M. Brand, Harrison; J. S. Butler, Marshall; M. P. Reves, Murillo; F. T. Murphy, Brinkley; T. E. Benton, Lonoke; J. C. Killiam, Des Arc; Ira H. Ervin and C. W. Martin, Newport, visited in Little Rock during the past month.

The modern diagnosis and treatment of disease cannot, at the present time, be made without the aid of the clinical laboratory, and we wish to call the attention of our readers to the pathological laboratories whose advertisements we carry, and whose reliability and ethics are dependable. The physician may send to these laboratories any kind of specimen for diagnosis, and the result will help both the physician and his patient. Many physicians are not acquainted with laboratory technic, and by becoming acquainted with clinical laboratories that we advertise they will oftentimes derive more benefit than if they took a post-graduate course.

When a medical book salesman calls on you, request that he inform his firm that you would greatly appreciate seeing their advertisement in your journal. When next you order surgical supplies, add a note to your letter suggesting the same. When you buy office furniture, lay in medical supplies, or transact any business with any company which deals with the medical profession, let them know that you would appreciate their patronage of *The Journal*. The effect of this personal solicitation is tremendous. When once the firms dealing with the medical profession of Arkansas realize that the physicians of the State are actively interested in the advertising columns of *The Journal*, our financial difficulties will be solved.

A MANUAL OF BIOLOGICAL THERAPEUTICS.

A book of uncommon interest and value to physicians has just been issued from the press of Parke, Davis & Co. It is a new

"Manual of Biological Therapeutics," receipt of a copy of which is hereby acknowledged by the editor of this journal. The book is handsomely printed in large, clear type, on heavy enameled paper, and bound in cloth. It contains 174 pages of text, upwards of thirty full-page plates in color, and a number of half-tone illustrations in black and white, together with a comprehensive index. As its title suggests, it is a concise and practical treatise on biological therapeutics, and so replete with useful information that no practitioner should miss the opportunity to secure a copy, especially in view of the fact that the publishers announce that the entire edition is to be distributed gratuitously to members of the medical profession. To our physician friends we suggest the propriety of writing at once for a copy of this "Manual of Biological Therapeutics," addressing the request to Parke, Davis & Co., at their home office in Detroit, Mich. It will not be amiss to mention this journal in writing.

THE PLAGUE IN NEW ORLEANS.

On October 1 the twenty-eighth case of plague died, and on October 19, for the third time since the disease was identified in New Orleans the city was declared free of human plague. Two cases occurred later. In the total of thirty cases recognized eight in all have died, a mortality of about 25 per cent. There has been no official publication of the plague cases in detail, with the character of the disease stated, but for the largest part the cases have been bubonic, with the femoral glands involved. The prompt effect of large doses of serum has been remarked, and the recovery of so large a proportion of cases is attributed to the use and manner of using the serum.

More and more rat-proofing is being done every day, and a thorough clean-up has been accomplished already, but it is projected to do it again, and yet again.

The distribution of rodent plague is still practically within the limits of the district dubbed "infected" by the health officials, with a wide dissemination of foci. Prompt measures of fumigation, deratization, and rat-proofing are applied to the residence or building in which or on the premises of which an infected rat is found.

The *Mus norvegicus* has been found in large numbers, *Mus musculi* in about 25 per cent, the *Mus rattus* in about 8 or 10 per cent and the *Mus alexandrinus* in less than 1 per cent of the rodents examined up to October 12, numbering over 112,000. In the 181 rodents infected with plague, 172 were *Mus norvegicus*, 6 *M. rattus*, and 3 *M. alexandrinus*.

The rat-proofing ordinances are being regularly enforced, and throughout the city of New Orleans the work is going on.—New Orleans Medical and Surgical Journal.

Abstracts.

THE ENTRANCE OF THE INFECTIVE AGENT OF EPIDEMIC POLIOMYELITIS INTO THE BODY.

In its issue of October 17 the Journal of the American Medical Association comments on the role of carriers in the transmission of infantile paralysis.

"Such persons or 'carriers' " the Journal states, "undoubtedly play a most important part in the epidemiology of the disease, and, on account of the difficulties connected with their detection, play an equally important part in the spread of the disease wherever such persons may go. The discovery of the existence of such 'carriers' is of more practical importance from the side of the prevention of the disease than was the discovery of the ambulatory cases. The important question of the means of entrance of the virus into the body has been under discussion with no definite conclusion having been reached. The early reports on the transmission of the disease by the stable-fly (*Stomoxys calcitrans*), as reported by Rosenau, indicated that the disease was transmissible by the bite of that fly, but the work of later investigators suggested that the disease was not usually transmitted in that manner. Some workers have steadfastly insisted on the transmission of the disease by contagion, with the nasal mucosa as the avenue of entrance. Among those who have held such views have been Flexner and his associates, and, in a recent paper, Flexner and Amoss have produced experimental data of a convincing character in support of this view.

"It would appear from their experiments that, although the virus is brought to the nervous tissues by the lymph, the distribution through the nervous system is, in large part, by means of the cerebrospinal fluid.

"The authors believe that their experimental evidence supports the view that epidemic poliomyelitis is caused by the entrance into the body of the specific agent through the upper respiratory mucous membrane to the olfactory lobes, from which, by means of the cerebrospinal fluid, it is distributed throughout the nervous organs. They add, however, that in exceptional cases other modes of infection may occur.

"Should it be that these authors are correct in their view as to the upper respiratory mucous membrane being the infection atrium, we will have a full explanation of the

reason for the failure of efforts to control the disease that have not taken this view into account. Strict isolation of the sick and those who have been in contact with the sick should have a material effect in limiting the spread of the infection."

DEPARTMENT OF HEALTH BILL ABANDONED.

"According to Washington correspondents, says *The Journal of the American Medical Association* for October 10, "President Wilson has announced a legislative program for the remainder of his administration. Greatly to the regret of his many supporters and admirers in the medical profession, he has not considered it advisable to include in his program a bill for the creation of a national department of health. This measure, indorsed by the Democratic party at Baltimore, is one of fourteen propositions thrown overboard. If reports are correct, the president for the remainder of his term, will urge the passage of only four measures; a bill regulating the development of water power in navigable streams; a bill providing for the leasing of mines and other resources on the public domain; a bill providing for eventual independence of the Philippines, and a bill providing for the purchase of merchant vessels. The proposition for the creation of a national department of health is the last subject but one on the list of fourteen discarded measures. Mr. Wilson, during his term of office, has secured much important legislation. He has also guided the nation through the intricacies of the Mexican and Japanese situation and the present European war muddle. These might well be regarded as sufficient accomplishment for two years. In seeking to limit his activities during the rest of his term to a few measures which can be passed, rather than to a large number of doubtful propositions, Mr. Wilson is acting wisely. The only difference of opinion which can arise is the relative importance of the four subjects selected as compared with those rejected. The development of water power and the control of natural resources are in line with the conservation campaign which has received support throughout the country. The purchase of merchant vessels is an emergency measure brought about by the present European war. The independence of the Philippines is a moral rather than a political question. The selection of these four subjects does not necessarily indicate that they are, in the minds of the administration, of paramount importance, but rather that, in proportion to their importance, they are, perhaps, more fully supported by public opinion. Yet it is a strange paradox that the

conservation of water power and mineral wealth should be placed before the conservation of human life. Perhaps if we had no federal health machinery of any sort, the situation might be regarded as more urgent. As a matter of fact, our Public Health Service has developed into a most efficient bureau, and is doing excellent work. It is not a question, however, of the value of the present organization, but whether a better might not be obtained. Yet the very efficiency of the Public Health Service may have been one of the factors which led Mr. Wilson to abandon, for the present, efforts for a national department of health. Whatever may have been the reasons, it is to be regretted that the measure has been temporarily given up by the administration. Its indorsement by the Democratic party and its support by Mr. Wilson aroused strong hopes that it would be taken up as an administration measure and pushed to practical consummation. Apparently, such expectations must be temporarily abandoned. It is to be hoped that before the next presidential campaign the popular demand for advanced public health legislation will be so strong as to lead all of the national parties to include an indorsement of this measure in their platforms. For the present, the slower but more certain work of public education must continue, with a view to ultimate rather than immediate results."

FOCAL INFECTION.

The results of a co-operative investigation in the medical clinic of Rush Medical College and Presbyterian Hospital of a number of infectious conditions are reported by Frank Billings, Chicago (*Journal A. M. A.*, September 12, 1914). Cultural and functional tests and histologic examinations have been made and a more definite knowledge has been obtained of important facts relating to focal infection. This may be located anywhere in the body, but the usual site is in the head, in the form of alveolar abscess, deep tonsillar or peritonsillar abscess and chronic sinusitis. Cholecystitis, acute or chronic appendicitis, submucous abscess anywhere, salpingitis, vesiculitis seminalis, prostatitis, etc., are examples of the local condition and secondary foci in lymph-nodes near to the primary focus become additional sources of continued and more general infection. Investigation may reveal more than one apparent focus of infection, which is important, as the sources of infection must be removed as the first step in treatment. Study of the tissues of the focus usually yield various bacterial organisms and varying strains of the same. The transformation of the strains in growth and special pathologic character as shown by

the work of Rosenow and others explains the varying and often contradictory results of research workers. Probably the infecting agent passes through the blood. Billings notices certain conditions which affect the progress of the disease and the parasite, such as the low oxygen tension required by the streptococcus of arthritis deformans and the opposite nature of *Streptococcus viridans* which requires a high oxygen content and is productive of endocardial troubles. Acute rheumatic fever is of undoubted focal origin, and he gives cases showing the action of the germ on the thyroid gland in acute rheumatism which has been noticed as frequent in foreign literature. This incited study as to the possibility of focal infection as a cause of goiter and several cases are reported. With the defenses of the body diminished infection foci can better do their work and "the removal of the focus of infection is demanded as a fundamental principle in the treatment of the systemic diseases, especially of the chronic type. Thereafter the management must be individual and based on the character and location of the infection. The attempt to immunize the patient against the infection must be attempted by restorative measures—food, pure air, passive and active graduated exercise, hematinic and other tonics, optimistic surroundings, etc. Autogenous vaccines may be used with rational reservation."

DIET IN TYPHOID.

L. F. Barker, Baltimore (Journal A. M. A., September 12, 1914), reviews the recent literature in regard to the diet in typhoid, and points out the advantages of the high caloric diet. He cautions, however, against the dangers of overfeeding in certain cases, as pointed out by McCrae, and emphasizes the necessity of individualization. He is convinced that there are some patients that cannot bear the high caloric diet, and that has apparently been the experience of the Johns Hopkins Hospital, especially in the early stages of the disease. Coleman has emphasized the necessity of beginning cautiously, and recommends a pure milk diet for two days in all cases. The details of the nursing must be carefully worked out.

FOOD IN TYPHOID.

A partial report of an investigation on the effects of food on metabolism, with special reference to its use in typhoid fever, is given by W. Coleman, New York (Journal A. M. A., September 12, 1914). He describes the unit apparatus employed and its method of use in estimating the heat production and the

respiratory quotient, and gives the results. He suggests and asks whether it is not true that many typhoid patients may have died because the loss of their body proteins was not prevented. While his results indicated the carbohydrate diet in this disease, he says the role of fat in the fever diet has not yet been completely learned. Observations to test its value are under way. At present he can only say from his clinical experience that he believes it to be an important constituent of the diet. His conclusions are given as follows: "1. Food does not increase the heat production or temperature in typhoid fever, even when given in large amounts (at least, when the quantity of protein is kept relatively low). Therefore, the fear which has been entertained by physicians for so many years that a liberal diet would raise the temperature of the patient is proved to be groundless. 2. The body utilizes carbohydrate in preference to fat or protein to meet the increased demand for energy in typhoid fever, just as it does in health when called on to perform additional work. Consequently, carbohydrate should occupy a prominent place in the diet."

SWEAT BATHS.

J. H. Austin and T. G. Miller, Philadelphia (Journal A. M. A., September 12, 1914), give the results of their study on the effects of sweat baths on the blood in nephritis. The chief experimental method has been by a study of the amount and composition of the sweat obtained. Strauss and Bendix found sweat to be of lower concentration than the blood and a greater concentration of the blood might be expected. This, however, has failed to be demonstrated. Von Noorden found great variations in different individuals, in the same individual at different times and from different skin areas of the same individual. The observations of other experimenters on the influence of sweating on the nitrogen content of the blood has been by estimating the composition of the sweat itself. By means of the technic of Folin and Denis, Austin and Miller have attacked the problem more directly. Each of eleven patients was given a sweat bath lasting from twenty to thirty minutes, during which he was given all the water desired by mouth. Blood was taken from a vein at the elbow both before and after the bath, 5 c. c. being used for each determination and duplicate analyses being made. A table of results is given, and no change of significance was observed in the concentration on the non-protein nitrogen of the blood as the result of the sweat bath. Without denying a possible

therapeutic value to sweat baths, the authors find no evidence that they lead to any significant change in the concentration of the non-protein nitrogen of the blood.

INTESTINAL OBSTRUCTION.

"Various theories to account for the characteristic symptoms and often rapid death following intestinal obstruction," says *The Journal of the American Medical Association* for October 10, "have been championed by different workers, with the result that the interchange of criticism and the analysis of the results already achieved have become a stimulus to new experimentation."

"In referring more specifically to one of the most recent contributions by Hartwell, Hoguet and Beekman," says *The Journal*, "we have no intention of implying that it represents the final word; but it does lend emphasis to certain facts and shifts the burden of proof in a new direction. Hartwell, Hoguet and Beckman insist that to accept the view that death results from toxemia it must be conceived either that new poisons are elaborated and absorbed or that an abnormal absorption of normally present products takes place. Whipple, Stone and Bernheim, although unable to isolate any poisonous material from the normal intestine, have obtained toxic products from closed or obstructed loops of bowel. They believe that the harmful substance with which they were dealing is elaborated in the mucosa, and that some as yet unknown agency is at work which profoundly alters the intestinal epithelium under conditions of obstruction. Hartwell and his colleagues, on the other hand, cannot justify these claims. They believe that the alleged toxic substances are derived from damage to the intestinal wall. Quoting them, the essential factor in causing the symptoms and death in intestinal obstruction does not lie in the poisons *per se*, but in the production of lesions which favor their abnormal absorption. Lacking these lesions, individuals die only from lack of water or from starvation, if dehydration is prevented.

The damage localized in the bowel is believed to result largely from the trauma inflicted by the overdistention with content acting to impede the circulation. The chemical action of digestive enzymes stagnated above the obstruction may also be of moment. Such a damage having resulted, Hartwell and his colleagues picture a bacterial invasion into the bowel wall with a death of tissue cells which is invariably demonstrable by histologic examination. In this localized deterioration the poisonous substances appear to be elaborated.

The loss of water characteristic of intestinal obstruction is caused by the excessive drainage into the intestinal lumen followed by vomiting. It is the merit of Hartwell and Hoguet to have clearly shown that this unexpectedly significant factor is entirely under therapeutic control and can be rendered harmless by subcutaneous administration of physiologic saline solution, for example, by continuous hypodermoclysis.

The evidence with reference to the poison or poisons involved in the fatal conditions is still indirect and inferential. The salutary effect of the replacement of lost water is manifested only so long as the intestinal mucosa remains intact. Obstruction of the lower bowel is less productive of dehydration because there is a long intact intestinal surface through which reabsorption can take place, the vomitus being thereby reduced in amount. This may explain why high intestinal obstruction in man is so much more acute than low obstruction. In the latter, mechanical conditions render the damage factors prominent. The clinical applications of the newer experimental studies need to be worked out in their details, but there can be no doubt that they will furnish a valuable contribution to practical medicine."

Propaganda for Reform.

SEROBACTERINS.—While objection may be made to the sensitized living bacteria used by Besredka because there is always an uncertainty as to the action of living bacteria in the animal body, such danger cannot be attributed to the "serobacterins," because they contain dead bacteria, and so far as known, can do no more harm than other dead bacteria—in fact, it is claimed that they are preferable to other vaccines because the toxic products of the bacteria other than the immunizing properties have been largely removed. It must be said, however, that these preparations are still in the experimental stage. In great part, careful clinical observations will decide that the serobacterins are really superior to ordinary vaccines (*Jour. A. M. A.*, October 3, 1914, p. 1223).

LACTIC ACID FERMENTS.—There is a large amount of literature to the effect that the *Bacillus bulgaricus* hinders putrefaction in the intestinal canal. While there may be some question as to a greater success in securing the implantation of this bacillus by administering it in "liquid cultures," the report of the Council on Pharmacy and Chemistry shows that such a culture is likely to reach the consumer in a more active state

than one in the form of tablets (Jour. A. M. A., October 3, 1914, p. 1223).

AGAR-AGAR BISCUITS.—To make agar-agar biscuits it is only necessary to add finely powdered agar-agar to the flour used in making the biscuit. The amount should be, if possible, sufficient so that a dose of 5 gm. will be contained in each biscuit (Jour. A. M. A., October 3, 1914, p. 1224).

ACTION OF SODIUM CACODYLATE.—Containing its arsenic in organic combination and in the pentavalent state, which becomes therapeutically active only as it is reduced to the trivalent inorganic state, sodium cacodylate is so slightly toxic that therapeutic doses do not give rise to toxic symptoms. There is nothing in the literature to show that sodium cacodylate has a special action on the eye, and blindness from its administration need not be feared (Jour. A. M. A., October 3, 1914, p. 1223).

GLYOTHYMLINE REFUSED RECOGNITION.—A report of the Council on Pharmacy and Chemistry cites Glycothymoline as a typical illustration of a "patent medicine" advertised to the public through the doctor. Different formulas have been ascribed to Glycothymoline by its promoters from time to time—but whatever the exact composition of this secret nostrum may be, it has been definitely shown that it is but a weak antiseptic solution. Nevertheless, the advertising circulars recommend the use of Glycothymoline in such serious conditions as diphtheria and ophthalmia of the newborn. Glycothymoline is in conflict with Rules 1 and 4 of the Council on Pharmacy and Chemistry, because of its indefinite composition and the method of advertising it to the public. It is in conflict with Rules 10, 6 and 8, in that it is an unscientific, shot-gun mixture, sold under unwarranted therapeutic claims and under a misleading name (Jour. A. M. A., October 10, 1914, p. 1313).

GLYCOTHYMLINE NOT HARMLESS.—Glycothymoline is a mild antiseptic practically devoid of germicidal power and when used as a simple mouth wash is practically harmless. However, the recommendations to the public for its use in serious diseases makes it a menace to the public health—and physicians are responsible for its widespread use. (Jour. A. M. A., October 10, 1914, p. 1304).

DECLARED MISBRANDED.—The federal authorities have secured convictions under the Food and Drugs Act against the following "patent" medicines: Nutrito, West Baden Sprudel Water, Radam's Microbe Killer, Dr. Hilton's Specific No. 3, Dr. Sullivan's Sure Solvent, Russell's White Drops. With the exception of the first two, the products were

declared misbranded, chiefly because false and fraudulent therapeutic claims were made for them. Nutrito was declared misbranded because false statements in regard to the ingredients were made, and West Baden Sprudel Water because it is not a natural water as claimed (Jour. A. M. A., October 17, 1914, pp. 1408 and 1409).

PHENOLAX WAFERS.—These are tablets said to contain phenolphthalein 1 gr., "aromatics" and sugar enough to make five grains. It is a question what purpose the "aromatics" and sugar serve, perhaps these are to mislead the unthinking to believe that this combination has some mysterious value over phenolphthalein itself (Jour. A. M. A., October 17, 1914, p. 1410).

PAPINE (Battle & Co.)—This is a simple aqueous alcoholic solution of morphin, one grain to each ounce. It is exploited under the utterly unwarranted claim that it does not nauseate, constipate nor create a habit (Jour. A. M. A., October 17, 1914, p. 1411).

CELERINA AND ALETRIS CORDIAL (Rio Chemical Co.)—Celerina is a shot-gun mixture, said to contain, in addition to 42 per cent of alcohol, kola, viburnum, celery, cypripedium, xanthoxylum and aromatics. Aletris Cordial is said to contain 28 per cent alcohol (more than is found in wine) besides three obsolete and valueless drugs, aletris, helonias and scrophularia. Whatever virtue there is in Celerina and Aletris Cordial is derived from the alcohol (Jour. A. M. A., October 17, 1914, p. 1411).

USE OF PARAFFIN OIL.—While it is recognized that cancer may be caused by chronic irritation, the paraffin oil used medicinally is bland and non-irritating and there is no reason to suppose that its continued use would cause cancer. A good quality of oil may be obtained by preserving paraffinum Liquidum or petrolatum liquidum grave (Jour. A. M. A., October 17, 1914, p. 1411).

HEMO.—The Thompson Malted Food Company, Waukesha, Wis., which sells Hemo Malted Milk and Malted Beef Peptone, offers its stock to physicians with promises of large profits. Hemo is advertised as "the food that builds up weak stomachs" and is stated to contain "the iron of spinach, the juices of prime beef, the tonic properties of selected malt in powdered form and the richest sweet milk." Hemo is "promoted" by absurdly extravagant claims and pseudo-scientific nonsense. Disregarding the question whether or not this is a stock jobbing scheme or whether the purchase of the stock is a good investment, physicians who buy the stock and prescribe the firm's output are not giving their

patients a square deal (Jour. A. M. A., October 24, 1914, p. 1494).

GINSENG.—Despite the fact that the peculiar man-shaped root of ginseng has no medicinal value so far as science can determine, the Koreans for decades paid their tribute to China in ginseng. In China it is reported as a cure for all ills that human flesh is heir to and has a special reputation as an aphrodisiac. Perhaps there is no better illustration of the virtue of aphrodisiacs in general than the fact that the Chinese are quite sure of the marvelous efficacy of ginseng, though no evidence of its virtues can be obtained in the west (Jour. A. M. A., October 24, 1914, p. 1486).

Obituary.

DR. JOHN C. AMIS.

Dr. John C. Amis, aged 55, one of the most widely-known physicians in Arkansas and known as the "friend of orphans," died at his home in Fort Smith, October 15, 1914. His last request was that the inmates of the Orphans' Home attend the funeral in a body. He has served them free of charge for more than sixteen years.

Dr. Amis was a very energetic and highly esteemed member of the Arkansas Medical Society.

County Societies.

MISSISSIPPI COUNTY.

(Reported by E. E. Craig, Secretary.)

The Mississippi County Medical Society met in regular session in the Business Men's Club rooms at Blytheville, October 13. The following members were present: T. F. Hudson and S. A. Lowry, Luxora; E. E. Craig, Wilson; J. F. Sanders, A. E. Turroutine and Dr. Usrey of Blytheville.

The business of the society was transacted with dispatch. The main feature, however, was the program. Two subjects were presented and discussed in a masterly way. Dr. T. F. Hudson read a paper and reported a case of hiccup in an adult, which he thought was of a neurotic origin, and was so persistent and violent in character that life was endangered. Dr. S. A. Lowry opened the discussion, followed by Drs. Turroutine, Sanders, Usrey and Craig.

Dr. Craig read a short essay, entitled "The Value of a County Medical Society," which was reinforced by a response from Dr. J. F. Sanders and others.

Our meeting was an interesting one and we shall not forget to tell the members who were absent about it, and ask them to come

and join at the next meeting as we will have something, perhaps, that will be of interest.

The standard of the Mississippi County Medical Society is rising and the class of service rendered to the patient in this community is being correspondingly improved.

LAWRENCE COUNTY.

(Reported by H. R. McCarroll, Secretary.)

The Lawrence County Medical Society met with Dr. T. C. Neece, Walnut Ridge, October 7. Members present: W. W. Hatcher, A. G. Henderson, J. C. Hughes, J. W. Morris, H. R. McCarroll, T. C. Neece, W. J. Robinson, J. M. Stephens, J. H. Stidham, J. C. Swindle and G. Max Watkins.

The subject of surgery was continued, and the following papers were read and discussed with interest: "What Consideration Should Be Given Shock Following Crushing Wounds of the Extremities?" by W. W. Hatcher of Imboden; "Fracture of the Lower Jaw," by W. J. Robinson, Portia; "Hemorrhoids," by T. C. Neece, Walnut Ridge.

Book Reviews.

THE CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume III, Number 3. Octavo of 215 pages, 54 illustrations. Philadelphia: W. B. Saunders Company, 1914. Published bi-monthly. Price per year: Paper, \$8.00; cloth, \$12.00.

Among the many surgical cases reported in this volume we find a very interesting and instructive chapter on "Murphy's Clinical Talks on Surgical and General Diagnosis," "Differential Diagnosis Between Benign and Malignant Breast Tumors," "The Differential Diagnosis of Gastric and Duodenal Ulcer," "The Diagnosis of Pregnancy in a Tube or a Bicornate Uterus Associated with Fibroid," "The Differential Diagnosis of Acute Appendicitis, Cholecystitis and Ascending Urinary Infection."

A TEXT-BOOK OF MILITARY HYGIENE AND SANITATION—By Frank R. Keefer, M. D., Lieutenant-Colonel, Medical Corps, United States Army; Professor of Military Hygiene, United States Military Academy, West Point. 12mo of 305 pages, illustrated. Philadelphia: W. B. Saunders Company, 1914. Cloth, \$1.50 net.

This book refers to the troops; the sanitation of posts, barracks and transports; the hygiene and sanitation of marches, camp and battlefields, etc.

The chapter on "Physical Training" was written by Captain H. J. Koehler, Director

of Physical Training at the United States Military Academy, West Point.

INTERNATIONAL CLINICS.—A quarterly of illustrated clinical lectures and especially prepared original articles by leading members of the medical profession throughout the world. Edited by Henry W. Cattell, A. M., M. D., Philadelphia. Volume III. Twenty-fourth series, 1914.

The volume is divided into six parts, namely: Diagnosis and treatment, medicine, electrotherapeutics, surgery, child welfare and medical problems.

Quite interesting and highly instructive is the article in the surgical section on "The Surgical Clinic of John B. Deaver at the German Hospital in Philadelphia," by P. G. Skillern, Jr., M. D., Philadelphia.

The article requires nearly 100 pages, several illustrations are shown. The colored frontispiece illustrates one of Dr. Deaver's cases of intestinal obstruction of sixteen inches of ileum by an unchewed and undigested conglomeration of peas and beans with tape worms (resection of sixteen inches of bowel; recovery).

Two full-page pictures of the surgical amphitheatre are given, showing the pit and the beginning of abdominal operations. The article closes with a picture of Dr. Deaver.

PROGRESSIVE MEDICINE.—A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by H. A. Hare, M. D., assisted by L. F. Appleman, M. D. Philadelphia. Volume III, September, 1914. Published by Lea & Febiger, 708 Sansom Street, Philadelphia. Subscription price, \$6.00 per annum.

The contents of this volume include: Diseases of the thorax and its viscera, including the heart, lungs and bloodvessels; dermatology and syphilis; obstetrics and diseases of the nervous system.

ANOCI-ASSOCIATION.—By George W. Crile, M. D., Professor of Surgery, School of Medicine, Western Reserve University, Cleveland; and William E. Lower, M. D., Associate Professor of Genito-Urinary Surgery, School of Medicine, Western Reserve University, Cleveland. Octavo of 259 pages, with original illustrations. Philadelphia, W. B. Saunders Company, 1914. Cloth, \$3.00 net.

This book presents a practical presentation of the technic of anoci-association. It begins with an introduction by Dr. Crile on "The Evolution of the Kinetic Theory of Shock and the Shockless Operation." The

book is then divided into two parts: Part 1, "The Kinetic Theory of Shock and Anoci-Association and a Summary of a Long Series of Experiments by Dr. Crile." Part 2 describes the application of the kinetic theory to the technic of surgical operations.

It is the most interesting book that it has been our pleasure to look over.

THE CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume III. Number IV. Octavo of 254 pages, 65 illustrations. Philadelphia, W. B. Saunders Company, 1914. Published bi-monthly. Price per year: Paper, \$8.00; cloth, \$12.00.

This volume begins with a clinical talk by Dr. Murphy on surgical and general diagnosis.

The leading article describes "Arthroplasty of Hip," with eight full-page illustrations.

Among many other surgical cases presented we find one deserving of mention on "Paget's Cancer of the Breast," with a colored illustration.

THE PRACTICE OF SURGERY.—By James G. Mumford, M. D., Lecturer on Surgery in Harvard University. Second edition; thoroughly revised. Octavo volume of 1,032 pages, with 683 illustrations. Philadelphia, W. B. Saunders Company, 1914. Cloth, \$7.00; half morocco, \$8.50.

In this volume the author gives an account of the practice of surgery—of surgery as will be seen at the bedside, in the accident wards and in the operating room.

Readers of the book will find description of all such surgical ailments as may fall to him for treatment and advice.

The first subject considered is that of appendicitis and so on through the book the writer takes up the surgical diseases in their order on interest, importance and frequency.

MANUAL OF OBSTETRICS.—By Edward P. Davis, A. M., M. D., Professor of Obstetrics in the Jefferson Medical College, Philadelphia. 12mo of 463 pages, 171 illustrations. Philadelphia, W. B. Saunders Company, 1914. Cloth, \$2.25 net.

This book has been written with the object of giving the profession a concise account of modern obstetrics. It should prove of incalculable aid to the general practitioner and the medical student in studying obstetrical diagnoses from the clinical point of view, and in learning how to make timely decisions in treatment.

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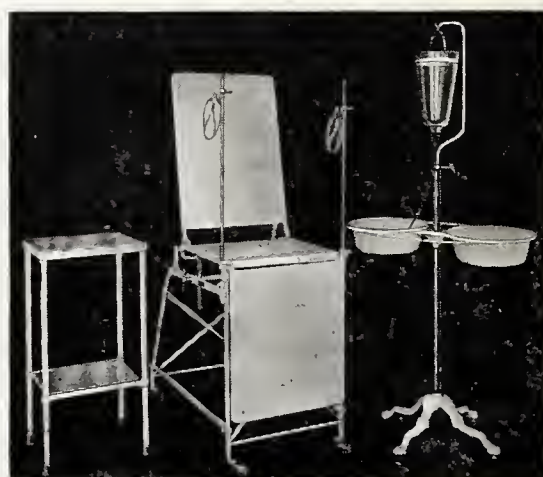
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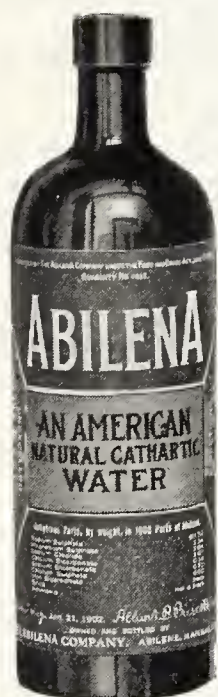
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Analyst, Ann Arbor,
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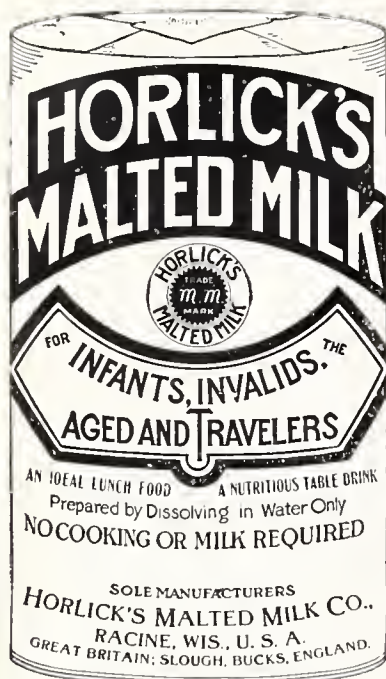
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THE MEDICAL PROFESSION AND PUBLIC HEALTH.*

By William R. Bathurst, M. D.,
Little Rock.

Mr. President, Ladies and Gentlemen:

When the state health officer invited me to read a paper before this meeting, I felt highly honored, and my fancy teemed with visions of the opportunity I should have to display my knowledge of acute exanthematous and other skin affections. Then, in the twinkling of an eye, they were all dissipated into thin air when Dr. Young nonchalantly added that my subject would be "The Relation of the Medical Profession to the Public Health." For all and any shortcomings, therefore, the blame must lie on the shoulders of Dr. Young—and a glance at his manly form will convince you that I have substantial backing. My subject is not of my choosing, and if my treatment of it does not please you, Dr. Young is the man for whom you should go gunning. Don't point your weapon my way! In law, you know, the principal is held responsible for the acts of his agent, and in tackling this subject I feel my own unfitness, but am obediently carrying out orders from headquarters.

The relation of the medical profession to the public health is something quite different today from what it was a few years ago. The profession has but recently become alive to this new relation. The physician of former generations, save in time of epidemic, confined his activities largely to treating such of the sick as came to him for treatment—and collecting his fees—when he could. As it is today, the treatment he usually found to be

the easier part of the duplex assignment. In those days treatment, not prevention, was the chief end and aim of the physician. That was before modern science had discovered the germ theory, or I should say "origin," for it is no longer theory, of disease. It was before medical science had learned that disease was less a visitation of God than a penalty for violation of nature's laws, or the result of ignorance of the origin of disease and the means of combatting it. For instance, many years ago a certain journal, as an illustration of how Dame Nature always furnishes an antidote in close proximity to the poison, as the healing dockweed grows close beside the stinging nettle, published a paper setting forth, gravely enough, that the pestiferous "skeeter" was a blessing in disguise, inasmuch as the poison of its bite had a virtue akin to quinine in counteracting malaria. Today we know that the mosquito is the culprit that carries malaria of the worst type from yellow fever down. Likewise, in that period, it was shown that the house fly was a scavenger, purifying the atmosphere of noisome contagion. In proof thereof, could not the busy little fly be seen scraping with its legs the tiny dust accumulations from its body, rolling them into a compact little ball and swallowing them? This of course, removed these disease-laden particles from doing harm to mankind. But today we know that the busy little fly is the most deadly enemy to health.

Lawrence Sterne in "Tristram Shandy" gives a charming picture of that kindly old servant, Uncle Toby, catching a fly which had been sorely annoying him, raising the window sash and releasing this captive with the words, "Go forth, little fly. I would not harm a hair of thy head. There is room enough in the world for thee and me." A touching picture truly, one that formerly held place in school readers as a lesson in kindness.

Today we pay children by the pint for the flies they "swat." The spider with his cun-

*Read before and published in compliance with a motion passed at the Second Annual Conference of Sanitary Officers of Arkansas, in Little Rock, November 24-25, 1914.

ningly devised web to entrap the harmless and unsophisticated fly was for generations held up as the emblem of cruelty. But with our latter day knowledge of the activities of the poor little fly we are less hard on the cruel spider, and the well-worn couplet

“Will you walk into my parlor?”

Said the spider to the fly

has lost its moral as exemplifying cruelty on the one hand and unsophisticated innocence on the other. We have no sympathies to waste on the poor little fly, even though we have no love for the spider.

With knowledge of the causes of disease—or some of them—and knowledge of preventive measures, came a sense of responsibility. The medical profession was no longer content to treat the sick, but, through organized effort, *combined to conserve the public health as far as possible, by endeavoring to prevent sickness.* It is true that before the present advanced era of medicine there were, in a few directions, some efforts toward prevention or modification; for instance, the discovery by Jenner of the virtue of vaccine virus; and, before his time, the inoculation of the disease on the theory that one had to have it sooner or later and that, by inoculation, the attack was rendered less virulent. Compare conditions now to what they were then, when smallpox was as common as measles, even more so; when scarred faces were to be seen on every hand—if you will kindly excuse the metaphor; today smallpox is considered a disgraceful disease, because it is classed as synonymous with filth and ignorance.

So it has come about that throughout the civilized world the medical profession has organized municipal, county, state, national and international conferences where the most learned scientists in the world assemble. Congress and parliaments have their health commissions; different nations send commissions abroad to study diseases and preventive methods in other countries; different nations work together in harmony in establishing quarantines; everywhere goes interchange of thought, results of experience, investigation, experiments, all at great monetary cost, sometimes of heroic self-sacrifice of life itself, with the end in view of preventing disease and the ultimate hope of eliminating at least all preventable disease.

Before going further into this subject let me pay a tribute to our own State Board of Health and its achievements, under difficul-

ties which would have discouraged less resolute and devoted men. The present administration has had some money, but never enough, and previous to the last state legislature we had the anomaly of a State Board of Health with not a single dollar appropriated for its work—a St. George without armor or spear, bid to go forth and slay the dragon.

Moneyless, it did what it could, the officers giving their time, without hope of reward, and frequently paying out of their own pockets expenses that had to be incurred. Since then, with a very meager appropriation the work of the board has been truly phenomenal. And this brings me to the greatest of all handicaps to which health boards everywhere are subjected, namely, ignorance on the part of the public—ignorance and, in many cases, plus prejudice. For an example, in our last legislature when our health bill was before the house and an appropriation was urged, one of the speakers dwelt on the ravages of the hookworm and there was some talk of infection through polluted soil to barefooted children and adults too. Thereupon, one of our law-makers—I blush to tell it—in good faith expressed the conviction that the whole business was simply a scheme for the leather trust to make people wear shoes. This, gentlemen, is not a joke. It is a fact.

Now, gentlemen, if we find that sort of dense ignorance in one of our law-makers, what may we expect of the ordinary citizen? It is a strange fact that in the matter of health conservation, which should be of the first importance to every man, we find an appalling ignorance among, not the common people only, but among those of intelligence in other matters. In addition to this ignorance we are confronted with a deplorable lethargy and carelessness on the part even of those who know better. It may be added that there are instances of carelessness, neglect and indifference in evidence among those of our own profession as shown by the unsanitary conditions of offices and outhouses. If we find such instances among those capable of teaching sanitation, how can we hope for obedience to sanitary laws by the average citizen? The trouble is that it is difficult to convince people of dangers not actually apparent. The indifferent who know, but do not practice what they know, take the view of Young—not Dr. Young, but the author of “Night Thoughts,” “All men think all men mortal but themselves;” and they violate

through indifference sanitary laws they know the danger of—when others violate them. A great hindrance is that women, who have so much to do with sanitary precautions about the home, neither read, nor believe what they are told. I refer, of course, to the reading of literature pertaining to health and sanitary matters. Strangely enough, they will read literature sent out by arrant quacks and believe, too—in fact, they will believe with faith so strong that they will even experience the “symptoms” set forth and so proceed to the “cure.” If it have a quasi-scientific tinge to it, some of the wiser fogies will be wholly convinced. Some years ago when “magnetic” treatments were at high tide, some bright humbug introduced “positive and negative powders” with highly scientific explanatory directions of how a positive would cure a cold and a negative fever. Under our present laws just this kind of fraud could less easily be negotiated, at least not through the mails; but the positive and negative game was worked in great shape and I cite it to show that there are those who will discern falsehood masquerading as science and will laugh the real thing to scorn. Old people will poo-hoo the findings of modern sanitary science and their opinions will have more weight with son and daughter than the truth emphasized from the lips of the competent. I can cite an instance of a good old woman who has buried four or her five children, all victims of typhoid. Their drinking water has been drawn from a pond above which on one side is the farm stable, on another a primitive open privy, and ducks, geese and chickens add to the general pollution of the water supply. But when it was suggested that the pond might be the cause of the trouble, the good old lady waxed indignant at the thought. “The Lord giveth; the Lord taketh away. Blessed be the name of the Lord,” she piously quoted, and, with Scripture to support her theory, sanitary science was nowhere.

Ignorance—widespread ignorance—affecting not only the unlettered, but the intelligent in thousands of instances, indifference, carelessness and skepticism of the truth of scientific dicta are the chief enemies to combat, to which must be added frequent difficult problems of sewage disposal and drainage, in rural communities especially, when in many cases for lack of funds the known remedy is unattainable.

But the conscientious, earnest physician is not discouraged by the handicaps encountered

at every turn and our health boards go on and on, and as they have robbed smallpox of its terrors and eliminated yellow fever and made the waste places habitable, and done many other wonders. They will persevere, nor will any one of the profession worthy the name ever neglect the opportunities of helping the cause of the public health by work, by precept, by example.

Human life is held too cheaply in this country. The railroads kill many thousands annually that are needlessly killed; outside the railroads the lack of safety appliances, unsafe buildings, unsanitary environment, hazardous tasks from which the hazard could be lessened by spending money were not life so cheap, all conspire to make an appalling list of casualties in our industrial life. This shocking waste of life is not brought home to people because the casualties are spread over a vast area and filter through to the public knowledge in dribbles insignificant in themselves. With scarcely passing interest, if you read it at all you learn of the killing of a brakeman in Kalamazoo and one at Jacksonville, Fla., and of the three caught in a fire trap of a factory in Massachusetts. It is nothing. But suppose these accidents here, there and everywhere, were concentrated. Suppose today you read with horror of 2,500 deaths by accident in St. Louis, and tomorrow of a similar catastrophe in the same city, and the next day of a third? How long would it be before a great wave of sympathy with the victims and denunciation of those responsible would arise from all over the United States, and with a demand for punishment and reparation in damages should criminal carelessness be shown?

Yet these 2,500 sacrifices are offered up to the Moloch of our commercial and industrial system every day, year in and year out; but so widely scattered and in such small units, as to pass unnoticed. When the yearly statistics are published they are read perfunctorily, if at all, and the slaughter goes on unchecked.

It is to remedy this waste of life, this needless waste, by preventable accident, as well as to conserve the health of the public, that altruistic effort must be devoted.

The hope of the nation is in the virility of its people. If a considerable number of its able-bodied men are prematurely cut off; if thousands of others are debilitated and made unfit by reason of unsanitary conditions; if others are affected by occupational diseases

which, by precaution, could be nullified or diminished; these matters, too, as well as battling with epidemics and keeping out communicable diseases, are all in the purview of the modern health officer to a greater or less extent, and in every case they come under his purview to the extent of reporting upon them and recommending the legislative remedy. The application of modern medical and sanitary science is still in its infancy, handicapped to a great extent by selfish interests and false ideas of personal liberty. But we shall go on until preventable disease is a thing of the past and what we regard as nonpreventable shall be less fatal, and till employers shall be brought to a realizing sense of their responsibility for the safety and health of their employes. Then, and not until then, will man live to something approaching the term of his natural days, in health and strength, and procreate a virile, fit, sturdy progeny that, in successive generations, under equally happy conditions, will make a race equal of any, if not greater than any, in history. This is the work of the organized medical men of the future and the individual practitioner, not in any official capacity with health boards, will be found, collectively, as a vast reserve body always ready and willing to be called into active service.

REPORT OF AN EPIDEMIC OF SMALL-POX.*

By Frank B. Young, M. D.,
Little Rock.

The epidemics of smallpox that have been so prevalent throughout the United States have been, as a rule, of such a mild type as to cause both the profession and the public to consider smallpox a trivial disease. The epidemic that I purpose to report is one of the hemorrhagic and purpuric type which existed in Elm Springs Township, Washington County, during the months of January and February of this year.

Mr. C. O. White and family left Tampico, Old Mexico, on December 30, 1913, landed at Port Arthur on the night of January 6, and reached Bert Carson's home in Elm Springs Township on January 8. On January 5 a boy two and one-half years old became sick, but his disease was not diagnosed as smallpox un-

til January 10, before which time a number of people had been exposed to the disease. The epidemic spread from this start, finally causing the sickness of twenty-six people. Of these, ten died. Of the ten that died, but one had ever been vaccinated, and he had been vaccinated in 1864. Of the vaccinated people who were in almost constant contact with the trouble were Mr. and Mrs. White, two White children, Mr. and Mrs. Wilse Phillips. Of these, Mr. and Mrs. White and one White child did not contract the disease at all. One White child had the disease in a very mild form, not necessitating going to bed at all. Mr. and Mrs. Phillips each had the disease in a very mild form and were hardly sick at all. Mr. and Mrs. Phillips were vaccinated in 1864 and no attempt to vaccinate has been made since until after this outbreak. The White family was vaccinated in 1910. A number of other persons who had been vaccinated came in contact with the disease before its nature was known, and did not contract it. Alex Downum, who had a severe attack of smallpox in the year 1864, at the age of two years, was employed as a nurse in the Phillips home and contracted the disease in a moderately severe form. Other persons, numbering in all about twenty, who had had the disease previously, were employed as nurses and none of them contracted the disease.

One child of Brown's was vaccinated after being exposed to the smallpox; the vaccination taking successfully, the child did not have the smallpox. Neither Mr. nor Mrs. Brown had been vaccinated previously; the vaccinations at this time in both cases were unsuccessful. Both contracted the disease; Mr. Brown died after an illness of about five days. Mrs. Brown recovered after a tedious convalescence extending over more than four months. Mrs. Brown is the only unvaccinated adult who contracted the disease and recovered. No unvaccinated person over twenty years of age recovered, with the exception of Mrs. Brown.

The interesting points in this epidemic are its high percentage of mortality, 90 per cent of all unvaccinated adults, the recovery of all children afflicted, and the very evident effect that age had on the prognosis of the disease. The younger the child, invariably, the milder the attack. One nursing child at Mr. White's had a very mild attack. The attacks ranged in severity from this in the unvaccinated to the death of some of the adults within forty-eight hours of the onset of the trouble. A

*Read in the Section on Medicine of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

successful recent vaccination in all cases was an absolute protection. In the cases of Mr. and Mrs. Phillips, a vaccination fifty years old exercised more protective influence than had a severe attack of smallpox in the same year in the case of Alex. Downum.

Another point of interest in this epidemic lies in the fact that it came not from the cases that have been epidemic throughout the United States for the last decade, but was imported with all its virulence from Old Mexico. The literature on the subject of smallpox goes to say that the disease seldom changes its type; that a mild case seldom assumes a severe form, nor does a severe case have a very well-marked tendency to become mild. Nearly all severe epidemics that have occurred throughout the United States have come from Mexico. The epidemic I am reporting is probably the most severe of any that has occurred in recent years in the United States. At least, I have not been able to secure data on any as severe from the Public Health Service.

In view of these facts it would be well for all physicians to be exceedingly careful in giving the prognosis in any case of the epidemic of smallpox. In the present existing condition along the Mexican border, with the refugees coming out of Mexico and into this country, it is quite probable that more than one epidemic of this severe type of smallpox will be reported within a few months. All physicians should make the attempt to trace the origin of smallpox where there is an epidemic, and should be particularly careful to report to the health officer. While I am aware of the fact that an epidemic of ordinary smallpox offers but few problems to the sanitarian or physician, such an epidemic as we had to contend with in Washington County last winter causes a great deal of trouble. Had it been realized at the onset of this epidemic that the disease was of such malignant type, it is altogether probable that a few lives might have been saved. Some of the victims who died took the very common stand that they preferred smallpox to vaccination. It is my opinion that at the present time anyone who is personally conversant with the situation that existed in this epidemic will never make such a statement. In case smallpox of a questionable source breaks out in any community, it will be wise for the local authorities to absolutely isolate the patients, permitting them to come in contact only with those who have been successfully recently vaccinated,

or have had a previous attack of smallpox. Should the epidemic prove of a mild type, these precautions will not do any harm; should it prove of the severe type, it may be a life-saving procedure.

DIAGNOSIS OF SMALLPOX.

Smallpox in its earlier stages is often difficult to distinguish from measles. The eruptive erythema of smallpox very often bears a decided resemblance to the eruptions of measles, but a careful examination will show the papules under the skin, and there should be no danger of making this mistake unless it is made through thoughtlessness. In very mild attacks of smallpox it bears a decided resemblance to chicken pox. The distinguishing features lie in the fact that the eruption of smallpox is worse on the face and hands than it is on the body, while that of chicken pox is just the reverse; the vesicles and pustules are multicellular, while those of chicken pox are unicellular; a smallpox vesicle when pricked with a pin will not collapse, while the chicken pox will. Later the crusting in smallpox is far more extensive than it is in chicken pox. Chicken pox eruption seldom appears on the soles and palms, while that of smallpox almost invariably does.

DISCUSSION.

Dr. F. C. Robinson: I just want to mention the importance of vaccination. I was in an epidemic in the spring and summer of 1909. I think we had 108 cases in my town. Those cases were in the confluent form. I saw thirty-two cases one afternoon. We had a boy who remained in one of the rooms in the public school all through the different stages of the disease. I kept tab on every case of vaccination in the town, and not one single individual that had been vaccinated contracted the disease. I had a family there of five. The mother had been vaccinated early in life when she was six years old. She then was nursing a baby three weeks old. Every one of the family had it, even the infant child, and she escaped in a family where the hygienic conditions were not the best. Not one of those people where they had been vaccinated contracted the disease; and yet we had 108 cases in the town during the spring and summer. So I just want to stress the importance of vaccination.

Dr. H. Thibault (Scotts): I have practiced for fifteen years where there is a large negro population, and, of course, a great many unvaccinated people. With one exception, we have had some smallpox every year. My experience with these people is that if the first few cases are fatal, there is very little smallpox. There is an opportunity to vaccinate everybody in the vicinity of those cases. If the first three or four cases are mild, they rapidly mount up to fifty or sixty, or, as in one instance in two adjoining counties, Lonoke and Pulaski, we had 150 cases inside of two months; very few severe cases, but the total deaths amounted to a great deal more than they did two years before, when we only had ten cases and the first three patients died. Among ig-

norant and superstitious people, it is probably the best thing that can happen for the first patients to die, because it scares them into vaccination. They do not quibble so long; they do not prefer the smallpox to vaccination when they have already seen the results of one or two severe cases. On the other hand, if it is mild, we have a lot of trouble getting any of them to be vaccinated. I preach in my community, and believe every other physician does, that it is an absolute disgrace and a crime for any person who can read and write, to have smallpox, or for any of their children to have smallpox; but the perversity of human nature is such that if we discovered that, by pulling three hairs of the head of every man we could prevent tuberculosis, we would find immediately a society organized to save the hair of people.

Dr. L. Kirby (Harrison): On the line of prevention and immunity by vaccination and the effect it has: In 1881 in our county there was an epidemic of forty-two cases extending over into Marion County. Thirty-two of those had not been vaccinated; of the thirty-two, sixteen died; nine had been vaccinated seventeen to twenty-five years before; of the nine, none died, and none of the nine were sick any length of time; of the sixteen that survived, one or two of them were blind in one eye, and had other defects following them. I mention this just simply to show that the people who know that vaccination is worse than smallpox are sometimes mistaken. That's all I want to do, to impress upon the minds of the people generally that vaccination does protect, even running over several years.

Dr. Young (Essayist): We have had a great deal of smallpox in northwest Arkansas, and I have been associated with its management for the last eight or ten years. But the ordinary epidemics that we have had have been negligible—that is, the results have been negligible. At the time this epidemic broke out, I was sick, and I did not have any part in the management of the beginning of the trouble. But, after a week or so, I was called into these cases, and I found that there were two doctors in whose territory these cases were occurring, both of whom had been practicing as long as I had, and neither of them had ever been vaccinated.

Voice: Didn't they get vaccinated?

Dr. Young: They got vaccinated. In my office we vaccinated between 800 and 1,000 people during the time of this epidemic. It was not any trouble in the world to get folks to be vaccinated at that time. But, vaccination is an absolute preventative of smallpox. Mr. and Mrs. Wilse Phillips were vaccinated in 1864—I am repeating part of my paper here—and Alex Downum had smallpox the same year. The smallpox that Alex Downum had was of such severe type that it killed his father, mother, uncle and brother in that epidemic. Alex Downum was assigned as a nurse in the Wilse Phillips house and contracted the disease at the same time, and was sick at the same time as was Mr. and Mrs. Wilse Phillips, and he had to go to bed and was really sick, quite sick, for three or four days. There is another thing that I wish this society would do, that each individual would make the custom of not using the term "varioid." That word should be expunged from medical nomenclature. It means one thing to one fellow and another to another fellow, and I have heard members of the Arkansas Medical Society call an eruption around a vaccination varioid. Now, with the indefinite meaning that it possesses in the minds of the people, I think that the word should become obsolete. I want to thank you gentlemen for your kind discussion.

EARLY RECOGNITION OF DISEASED TONSILS AND ADENOIDS.*

By W. T. McCurry, M. D.,
Little Rock.

The Twentieth Century has been marked by an unprecedented interest in the welfare of children—comparable, indeed, to the great periods of inspiration in art, in religion, and in letters which have occurred at different times in past centuries. Today the educator and the social worker receive instruction in health matters as an essential part of their training. Municipal authorities are endeavoring to reach parents by school inspection, by visiting nurses, and by public lectures and exhibits. Physicians, heretofore blind or curiously indifferent to the diseases and defects found in children past the period of infancy, have been awakened by medical inspection in schools.

The revelation that defects of the eye, the nose and throat, the teeth and the mind, may profoundly influence the general health of the individual bids fair to break down the artificial barriers which have been raised between the so-called specialties and general medicine.

Early recognition of diseased tonsils and adenoids is of vast importance and the family physician should be the light-house, to guide safely past the danger mark those intrusted to his care.

The symptoms in these troubles vary according to age of child, but are always easily detected. In the infant the chief symptoms are those of nasal stenosis and its sequelae. Such infants often suffer from convulsions, laryngismus stridulus, and vomiting.

Owing to the low position of the nasopharynx in infancy and its relatively greater length from before backward, and the smallness of the nose and its cavities, a very small growth causes greater obstruction.

The presence of adenoids in an infant interferes with the nasal respiration to such an extent that nursing and swallowing becomes almost impossible in many cases. This interference with nutrition and lack of oxygen causes a serious condition of malnutrition which is often accompanied by rickets, deformities of chest, and the so-called "pigeon

*Read in the Section on Medicine of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

breast." It has been generally believed that adenoids are peculiar to children beyond the age of two years; however, it has been proven by many of our best authorities that they occur in early infancy, and the younger the patient the more serious the effect.

In later childhood we seldom find a case presenting adenoids that does not also show considerable enlargement of the faucial tonsils, and it is a well-established fact that if adenoids are removed and the faucial tonsils left, the tendency to the recurrence of the adenoids is very great.

The frequency of adenoids is given as 15 to 50 per cent of all children, and is often found to be a family characteristic.

Children thus affected are more susceptible to "colds," snuffles, and have a constant nasal discharge; breathe through the mouth; nervous, often inattentive through deafness, and complain of earache.

In all cases a careful examination should be made to detect cause of the trouble, and, if possible, remove it. Any suspected source of contagion should be avoided and especial care should be given to the condition of the mouth, pharynx and nose. The teeth and gums should be kept as cleanly and healthful as possible. At all ages and in all stages, a watch should be kept for the involvement of joints or cardiac lesions, as there is close relation between tonsillitis and rheumatism, or so-called "growing pains" in children.

Diseased tonsils and adenoids are perhaps the most frequent causes of deafness. I have observed that the submerged tonsil, which may be quite small, is more liable to be doing harm than the fairly large discrete one. The tonsil that is more or less submerged is the one that nearly always is to blame for infection.

The large discrete tonsil may interfere with the breathing; also development of the jaw and face.

Some of the chief indications which render complete removal advisable are as follows:

1. Interference with respiration, night or day.
2. Threatened alteration of voice or articulation.
3. Eustachian catarrh, or the presence of middle ear affections.
4. Chronic enlargements of the cervical glands.
5. Chronic lacunae tonsillitis, or the cheesy collections in the supratonsillar fossa or between the tonsil and the pillars.

6. If adenoids are present and are to be operated on, the opportunity of an anesthetic should be utilized to remove any decided tonsillar hypertrophy.

7. Attacks due to septic absorption through the tonsils or a chronic condition of ill health which can be attributed to infection through the tonsillar area.

8. Frequent attacks of tonsillar inflammation or of peritonsillar abscesses.

In most cases it is the septic state of tonsil, rather than size, which determines the question of removal. Some of the largest tonsils give rise to the least local inflammatory trouble, but there are two very important reasons for operation when indicated. First, being to conserve to the general health of the patient by removing a manifest source of infection; second, to conserve and improve the functions of the neighboring respiratory and phonatory organs. Exceeding care should be taken not to sacrifice important structures in our zeal to remove sources of infection. I have seen many children with defective voice and speech from this cause.

Stasis lymphaticus is an absolute contra-indication, and if we could clinically diagnose this unfortunate condition, it would save us many dangers.

Hemophilia is also another absolute contra-indication, but fortunately it is a rare condition.

A few words here about hemorrhage will be well to consider. Primary hemorrhage should always be controlled before attempting to remove the second tonsil. Secondary hemorrhages are treacherous, and it is well to be on the outlook for them, for they are unavoidable in some cases.

Because of the rapid propagation of pathogenic bacteria in the nasopharynx, where is found diseased tonsils and adenoids, the complication of infection of the middle ear is frequently observed. The nasopharynx is filled by the growth which presses on the opening of the eustachian tube, and this interferes with ventilation of the middle ear and often results in infection and suppuration. This condition should be early recognized, for, if neglected, it will cause infection of the mastoids, which may extend to the brain, causing meningitis or abscesses of brain. It is generally recognized that the faucial and pharyngeal tonsils are important channels of infection in tuberculosis. They may not themselves become tubercular, although their tissues are traversed by bacilli

on their way to the glands. But tuberculosis of adenoid growths has now been demonstrated by numerous observers.

Captain Catlin, in his book on mouth-breathing (1861), said, "Shut your mouth and save your life."

Will give a few cases from my records.

Case No. 1. Girl, twelve years of age. Six months before I saw patient, an effort had been made by family physician to remove tonsils and adenoids, but failed because of bad respiration. When anesthetic was started it was found that the tonsil was so large that it blocked off the breathing and had to be lifted up so we could continue the operation. Both tonsils and adenoids were removed. This patient had suffered with extreme nervousness, indigestion, and emaciation; but since operation two months ago, she has overcome nervousness, regained strength, and general condition has wonderfully improved.

Case No. 2. Boy, age four years. The child became deaf in three days; when examined I found both tonsils greatly hypertrophied and large adenoid growth. I removed both tonsils and adenoids at once. One week after operation child was apparently well and hearing restored.

Case No. 3. A young man, twenty-seven years of age, suffering with rheumatism. I examined his throat carefully and found small submerged tonsils; otherwise very little trouble was visible, but when I introduced a eustachian catheter I found a quantity of pus pent up between anterior pillar and tonsils. I gave a general anesthetic and did a thorough enucleation of both tonsils. The source of infection was removed and in a short time patient was entirely free from rheumatism. I saw him three months afterward. He had gained ten or twelve pounds in flesh and seemed to be in perfect health.

Case No. 4. Girl, seven years of age, had rheumatism; also complained of shortness of breath and pain in chest, which, upon examination, proved to be pericarditis. Her tonsils were septic and submerged. They were removed at once. She was put out of doors and given tonics and fed well, and begun to improve at once.

Case No. 5. Girl, age six, suffered from chronic discharge from both ears, which was aggravated by taking of cold, or any exposure of any kind. She was very nervous. Upon examination I found she had chronic enlarged tonsils and adenoids. They were

removed and the child put on tonics, and outdoor exercise. She made a good recovery.

Case No. 6. Girl, age seven, suffered from seizures resembling epilepsy. She was very nervous and poorly nourished. The spells would come on after any error in diet or excitement. Her tonsils were large and were removed along with the adenoids. This seemed to relieve her of all of her troubles.

This paper is not an attempt to exploit any particular method of dissection or operation.

I could recite numbers of cases, but for lack of time will not do so here. In summing it all up, I will say nothing is of greater importance than the early recognition of diseased tonsils and adenoids, as innumerable troubles are prevented by such recognition.

DISCUSSION.

Dr. R. H. Huntington (Eureka Springs): I would like to ask the earliest age at which he removes adenoids, and if he invariably does a tonsillectomy or tonsillotomy?

Dr. Thos. Douglass (Ozark): I am much interested in the doctor's statement regarding tubercular infection of the adenoids. This is quite important, as probably a good deal of tuberculosis gets in by way of the tonsils and adenoids. I believe that by far the commonest of the infections that get in through the tonsils is rheumatism; possibly that is the way people in general get rheumatism. But I would like for him to tell us more fully in regard to tubercular infection through the tonsils and adenoids. We need more light on that difficult subject, the early recognition of tuberculosis. In three-fourths of the cases we fail to recognize tuberculosis when it begins. It seems evident that it does begin in early childhood in most cases. I have heard that Woodruff of St. Louis has said that adults do not acquire tuberculosis, that it is always acquired in childhood; that it gets in by way of tonsils and adenoids; and that the child either dies of tuberculosis or develops immunity, the disease remains latent in his system until later in life his immunity is broken down and active tuberculosis develops. If we can have some method of recognizing early in childhood the first beginnings of the trouble and use those measures necessary, perhaps the more frequent removal of diseased tonsils and adenoids we shall be able to prevent many cases of tuberculosis.

Dr. J. F. Rowland (Hot Springs): This subject has been so thoroughly discussed and the laity has taken the matter up until now the public school teacher is beginning to recognize the condition from the appearance of the patient. I am glad to know that the public schools of today are having their school children examined by competent practitioners and rhinologists, and in the near future a great many of these troubles will be eliminated. I believe that the sooner the child is operated on, the better before the arching of the palate or the mouth-breathing and other symptoms are established. I believe that the complete enucleation of the tonsils should be done in every instance, where they produce that condition. I believe that the adenoids should be removed in every case. As to the tonsils being removed, sometimes we are not in a position to know just when that tonsil

will give trouble when it has not given trouble in the past. I had occasion two years ago to examine a patient who had been operated on by a competent specialist removing the adenoids and leaving the tonsil. A year after the operation the child developed middle ear trouble, suppurative otitis media, from an inflamed condition of the tonsil. Now, previous to this operation there was no infection; that is, there was no history of any trouble with the tonsil, although mouth-breathing had been established. Just to know when to take out these tonsils is a question whether we are going to establish a precedent now as a great many of the abdominal men have done in removing the appendix when an incision is made in the abdominal cavity. I believe if a tonsil is giving any trouble whatsoever, it should be removed *in toto*. In removing the tonsils, I would prefer to have the patient given a general anesthetic. I believe that a better operation can be produced both on the adult and the child. You have the patient under complete control, and the hemorrhage, if it occurs at the time, is stopped and controlled. The adenoids, if operated on at all, should be completely removed so that the Rosenmüller's fossa is completely relieved of its congestion. Otherwise you may have a congestive condition of the eustachian tube, and conveying the infection to the ear, producing ear trouble.

Dr. Robert Caldwell (Little Rock): We must not forget that adenoids and tonsils are normal growths. If they have not given any trouble, we should leave them alone. That may sound a little different to what you might expect me to say, as that is the way I make my living, but it is as I see it. Every baby has an adenoid, and if those adenoids don't give him any trouble with his breathing, with his ears, with his speech, or make him susceptible to colds, leave it alone. The tonsil is a normal growth, too. I remove tonsils for two conditions. One is a diseased condition; one is an enlarged tonsil. Of course, an enlarged tonsil we call diseased, because it is hypertrophied. Do adenoids come back? Kyle has said that adenoids keep growing, and if one is cut off it may grow out again. I believe most adenoid operations we do over again are done because the operator did not get all the adenoid. I may make a scrape with my curet and leave a piece on the right side, or leave a piece on the left side that will hypertrophy and protrude and cause obstruction, while if I had gotten all of it way up to the top of the epipharynx and on each side and in the middle, I think there would be very little likelihood of them ever growing out again. How is the general practitioner going to know if a child had adenoids? From the clinical symptoms pictured in the book, of course. One test that we have to show that we know for sure that a child has adenoids is to take the child and get it up close to you and put your finger on the cheek on the left side and stick your other finger back behind the soft palate and feel. You can not do it in a second and swear to what you feel. You have to get the finger in there and wait until he relaxes that palate, or pull the palate away and feel, because you are feeling with the back of your finger.

Indications for removing the tonsils were covered very thoroughly. In case of peritonsillitis, they do not pull out from the throat like the others do; they are very hard to get out; they will not shell out in the capsule as the ones that have never had any peritonsillar inflammation, and you are likely to have trouble with them. The doctor reported one case of a child four years old being deaf. I have never seen in my experience—of course, that doesn't amount to so much—a deaf child cured by taking the tonsils out. I have where they were hard of hearing. But I have never seen a completely deaf child cured by having its tonsils and adenoids removed. That is the

point that we should be very careful about, to make a diagnosis before we operate. In regard to removing tonsils and adenoids, I have had in my experience two or three children brought to me in the last five years that were entirely deaf, and the father and mother wanted to know if I thought it would be a good thing to remove their adenoids and tonsils. I have never done it, and I am not going to, unless they have other indications besides the deafness for removing these adenoids and tonsils.

Now, in regard to chronic suppurative otitis media, I do not promise this fellow, who has had suppuration in his ears for months and years, anything when I take his adenoids and tonsils out. The majority of these cases have an old drum that has a great big hole in it that is sloughed out. You take his tonsils and adenoids out, and he has a little trouble with his nose and throat, and has a running ear again. I have dozens of them come to me, but I tell them plainly what I can do.

In regard to rheumatism, there is a great deal being written today on rheumatism, and that the infection comes from the tonsils. I do not know, and I don't think anyone else does. If there are other indications besides rheumatism for the removal of the tonsil, I take the tonsil out, otherwise I leave it alone. I would not take any patient's tonsils out if he has rheumatism if he did not have attacks of sore throat or peritonsillitis, or some other trouble that would make me take his tonsil out outside of his rheumatism. I do not know whether I am right about that or not. Another point, as to tubercular tonsils: I want to warn you to be careful about operating on a patient that has active tuberculosis, as taking his tonsils out. You take that patient's tonsils out and he is not able to eat much for a week; you cause him to lose more or less blood, and by the time he gets back on his feet he has often lost ten, fifteen or twenty pounds, and maybe he will never get it back. If it was settled that the tonsil was the cause of the infection and to take it out would cure him, it would be different; but we do not know. I have examined reports that the leading men of the world have made on examinations of tonsils for tubercular germs, and about 5 per cent of all tonsils that are taken out promiscuously were found to have tubercular germs in them; but that does not prove anything.

I appreciate the paper very much, and want to thank Dr. McCurry for presenting to this society his subject in such a good manner.

Dr. R. C. Dorr (Batesville): I want to commend the doctor for defending the tonsils a little. They should have been defended long ago. There is not a man here—a specialist, I don't believe, or a general practitioner—who ever saw anybody die from an infection of the tonsil, that stayed in the tonsil. Even in diphtheria, if that diphtheritic membrane stays on the tonsil and does not go over the pillar, that patient does not die. That is my experience. If the experience of any man in this house differs from that, let him stand up. Who can cite a single case that died, where the membrane didn't extend beyond the tonsil? I am glad Dr. Caldwell gets up here and defends it. You find tubercular bacilli in the blood of healthy people, and you find it is carried in the tonsils, and those people never have tuberculosis from it. They may have diphtheria germs in the tonsil and not contract the disease. This thing of taking out every tonsil is as bad as the general surgeon taking out every ovary when he opens a woman's abdomen. It ought to be condemned; it is condemned now, and should have been condemned always; and this thing of the specialists taking out every diseased tonsil that comes to them for treatment, is, to my mind, absolutely wrong. I have treated through one epidemic

of diphtheria and cannot cite a single case of diphtheria that ever died as long as the membrane stays on the tonsil, but when it gets over the pillar it is different. They are reporting now in these radical removals of tonsils 70 per cent are having contractions of the pillars and having all kinds of trouble. (Applause.)

Dr. J. L. Jones (Searcy): I have enjoyed the discussion very much, but I rise more to defend the tubercular condition of the tonsil. It seems that some of our leading surgeons think that whenever a patient comes with a throat trouble or tonsillar trouble to the specialist, that he recommends tonsillectomy or tonsillotomy at once. Now, they don't do that. If they have got a diseased tonsil, they remove it just like, if you have a diseased ovary, you remove it.

Dr. Dorr: No; you leave all you can.

Dr. Jones: If the whole is diseased, you remove it. If the whole tonsil is diseased, you remove it. What I call your attention to is that tuberculosis could be produced or contracted from a diseased tonsil. That is very easy, if you just remember the anatomy of it. Where we have not got a diseased tonsil, we don't remove it. If we have the whole tonsil diseased, we remove it. But, if we have part of that tonsil diseased, we remove that part of it. That's the idea. Food gets on to the tonsils. You do not think that produces rheumatism. I will say it produces rheumatism.

In this condition that brings on the disease of the tonsil, the system absorbs the poison that will produce a rheumatic condition. As to adenoids, I think they should be removed as early as they can be recognized before the face is disfigured. We have the bones of the face and of the mouth and palate, and even the jaws, that are deformed by the enlargement of these adenoids. Someone said that the child was born with adenoids. I think they are born with pharyngeal tonsils. I don't know as to the adenoids that become enlarged or diseased. I leave that to the doctor. But, I take it that it is as much of the tonsil as the larynx or fauces. That's what our anatomists tell us, that we have a pharyngeal tonsil, and give us the location in the pharynx. As to producing other troubles, it is very reasonable to suppose with a diseased tonsil, with the absorption by the blood vessels, and of this chain of glands, both superficial and deep, that we can have a diseased condition very early in the apex of the lung. I have been told by lung men that we generally catch our first trouble in tuberculosis in the apex of the lung.

Dr. H. H. Kirby (Little Rock): From the discussion it may be of interest to review some points concerning the tonsil, its possible function being primarily important.

First. It has an outflow and an inflow.

Second. Its histological structure places it as a protective gland, also serving possibly, as some have said, as an immunizing agency, and positively as a lysin-producing organ.

Third. Its anatomical situation gives it a protective significance, discharging substances related to the lysins, also allowing exit of leucocytes into the otherwise unprotected pharyngeal wall.

Fourth. My clinical work has shown that there is a relative increase of lymphocytes in the blood after its removal and a decrease of large mononuclears. Whether this indicates an internal secretion I am not at present prepared to say. I may give you more positive evidence at the next meeting of the significance of these elements.

Dr. D. C. Walt (Little Rock): We should recognize the fact that everything has its value for good and for harm—it does not matter what it is.

I certainly think the use of whiskey and tobacco is harmful. As far as the relative values are concerned, however, I think meat and bread kill more people than all the whiskey and tobacco combined. I think they claim premature deaths by millions while whiskey does it by tens.

It's a matter of waste and repair. It's so much of this and so much of that under certain conditions that make certain expressions. It's that way with the man and woman. It's that way with the horse.

Meat and bread have their value to do good and their value to do harm. I don't believe any man would wallow in the street from drink if it wasn't for his oversupply of meat and bread. I don't believe you can make a well man a drunkard, because if he were careful to maintain his normal relations to the point every man should be, he would be able to control his appetite. Every man who is a drunkard has a diseased condition—not from whiskey alone.

You can cultivate your appetite for meat and bread; you can cultivate your appetite for morphin, or for whiskey and tobacco. Appetite can be controlled; hunger is a natural condition. They are different things absolutely; neither can take the place of the other. Not for a minute do I advocate the use of tobacco or whiskey, but, at the same time, improper eating, improper drainage, improper appreciation of the relative values that go in to make the whole, are the reasons for the great penalty we are paying for civilization.

I hope I am not misunderstood. I think we should look to the relative values and not to one thing, because the law that controls waste and repair is multiple.

No prescription will ever cure an abnormal condition; it never did—it never will. It's a matter of controlling these relative values to the point that you get a normal expression, or at least a comparatively normal expression. It's a matter of CAUSE and EFFECT. (Applause.)

Dr. C. N. Pate (Little Rock): I have listened with intense interest to the discussion that has been brought out. I appreciate in one sense what has been said in regard to tobacco and whiskey. In regard to the causes of hypertrophy of the tonsils and adenoids, I don't believe that we can attribute the use of tobacco and whiskey as a cause for these misfortunes to the offspring of those who indulge. I have talked with medical missionaries from the heart of Africa and other fields, where the inhabitants know nothing of tobacco and whiskey, and they tell me that adenoids and diseased tonsils are numerous. I think we can look at the negro race and easily see that they have in higher proportion adenoids than our own people, and I am sure that, if we should attribute whiskey and tobacco as the cause of adenoids and hypertrophied tonsils, or one of the causes, we could eliminate that, for the negro race has not been in this country so long that they would have brought this on their race.

Dr. Bradford: Nearly every one of them uses it.

Dr. Pate: I would like to say the true etiology is purely speculative, but we can credit bacteria as the principal cause of hypertrophied tonsils and adenoids in the small child, and the percentage is indeed large; I should say more than 50 per cent of the children from one to six years old have enlarged tonsils. I believe the source of infection should be largely attributed to the fact that the little fellows are placed on the floor or rug to play, where we have walked with our soiled shoes coming in from the street, and dirt, where we have picked up millions

of different germs. The baby's toys are everlastingly stuck in its mouth, then rolled on the floor, back in its mouth again, or it may have a mouth full of dirt it has picked up from the ground.

In regard to what Dr. Jones said in taking off part of the diseased tonsil, I disagree in regard to doing that kind of operation, for I have seen as many tonsils come back for treatment that have been clipped off, the supposed diseased part, almost as I have those that have never been operated on at all, but have been treated. Frequently I have heard physicians say they can outline and distinguish the diseased part of the tonsil and take that part off, but I don't believe that they have eliminated the trouble, and I heartily agree with the authors, and men whom I have been associated with in my experience, that the entire tonsil should be removed and no part of it left, if it should be removed at all. I have thought of some things in regard to what constitutes a diseased tonsil and adenoids. I believe that the laity and some physicians don't think that a tonsil and adenoids are diseased until they begin to cause tinnitus, mouth-breathing, facial expression, otitis media and anemia, things that are easily seen by the laity. They don't think that a tonsil or adenoid should be removed until it has done its damage. I am not a believer in chopping out every tonsil that comes to the specialist. He should be conservative in his consideration of the cases that should be operated on, and should not make every case an operative one which seeks his office complaining with an irritable throat; but I do believe that a great deal of the results of hypertrophied tonsils and adenoids could be eliminated if they were removed earlier. And I say that any tonsil that is hypertrophied and sticking out over the laryngeal space, cutting off the respiration and almost filling the child's throat, should be removed, even if we do not have any other outward manifest symptoms.

Dr. W. T. McCurry (Essayist)—I wish to thank all who have taken part in discussion of this paper.

In answer to Dr. Huntington's question, I would remove adenoids at any age if they interfered with nursing, or respiration in any way. I am not the author of the rheumatic theory caused by absorption from a tonsil, but am only quoting from Taylor and Pye, who have discovered a diplococcus and named it *diplococcus rheumatis*. They claim it causes many diseases of childhood followed by rheumatism, endocarditis and pericarditis.

I believe Dr. Caldwell mentioned the deafness. This deafness I spoke of in the child was an acute affair and it was brought about by the enlargement of the tonsils surrounding the orifice of the eustachian tube. The tonsil is an organ of defense, and is a physiological one. But, when it becomes pathological it should be removed as any other diseased organ.

I am under many obligations to Dr. Kirby in bringing out the anatomical formation of the tonsil.

CAUSE OF FOOT AND MOUTH DISEASE.

"The cause of foot and mouth disease," says The Journal of the American Medical Association, "is present in the contents of the vesicles, the discharge from the ulcers, the saliva, the milk, the urine and feces, but as a rule not after the tenth day. It is stated that animals having had the disease may carry the virus for months. Any susceptible

species may infect any other susceptible species. Infection occurs not only through direct contact, but also indirectly, as the virus retains its virulence for some little time, at least outside the body. Contamination of fodder, of stalls, of feeding and drinking troughs, of milk and milk products, and of the hands and clothes of drovers, serves to spread the disease, which often travels over wide stretches of country with remarkable rapidity, as shown by the present outbreak. As from 25 to 50 per cent of the cattle exposed to infection may become sick, there results great loss from fall in the production of milk, from reduction of vitality and fecundity, and from deaths as well as on account of the measures adopted to stamp out the epizootic.

"The immunity produced by an attack seems to be feeble, as animals are said to suffer sometimes more than one attack within a short time. So far no practical method of protective inoculation has been developed.

"Our knowledge of the cause of foot and mouth disease is limited to the fact that it concerns a filterable virus, as yet invisible and incultivable. It was in 1897 that Löffler and Frosch made their classical experiment, showing that the disease is caused by a living, proliferative virus that passes filters which do not permit bacteria to go through, an experiment that has served as a model for all the subsequent work on the many other forms of filterable virus recognized since then. Foot and mouth virus may remain active for months if kept cool and moist, but it is destroyed rapidly by drying, by heat at 60 C. (140 F.) and above, by formaldehyde and phenol (carbolic acid)."

DIET CAUSES PELLAGRA.

According to Dr. Joseph Goldberger, of the United States Public Health Service, the government's investigations have led to the definite conclusion that pellagra comes from living on a one-sided diet, and is in no way contagious or infectious. Only those whose diet contains too little of certain classes of proteid foods, such as milk, lean meat or legumes (beans and peas) develop the disease. "The treatment and prevention are very simple," says Dr. Goldberger. "Those who are sick with pellagra should be fed an abundance of milk, eggs, lean meat and beans and peas."

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Editorials.

THE STATE HOSPITAL MUDDLE.

It is with some diffidence that we take up the matter of the resignation of Dr. J. L. Greene as superintendent of the State Hospital for Nervous Diseases, inasmuch as the name of a former president of the Arkansas Medical Society is, in a measure, connected with it as Dr. Greene's successor. However, it should be fully understood at the outset that Dr. Young was in no sense a candidate for the position. He did not seek it to oust Dr. Greene. On the contrary, we are told that Dr. Greene himself suggested Dr. Young after he had fully decided to resign. That fact relieves Dr. Young of any onus in the matter.

The unfortunate feature in the whole matter, according to Dr. Greene's statement (and it is worthy of note that this has not been denied from any source), is that trouble between him and an officer of the State Board of Charities was inspired and fomented by a sordid and unseemly question of "jobs" to be provided for certain relatives of the official. "Public office is a public trust," was the dictum of one of America's greatest presidents and purest patriots, as opposed to

that mischievous Jacksonian theory, "To the victor belongs the spoils."

But, whatever may be said of the merits or demerits of the Jacksonian idea in public offices filled by laymen, it should never find an abiding place in the management of eleemosynary institutions. This is said without special reference to the State Hospital controversy. It applies to all institutions alike, for the dumb, the blind, the insane and the sick. They are the helpless charges of the state, and whenever politics or the providing of jobs to political workers, relatives or friends of the powers that be, is allowed to have sway, the efficiency of such institutions is jeopardized, if not destroyed. Efficiency alone should be the test of incumbency of office, and such paltry considerations as paying political or personal debts at the expense of the taxpayers should be relegated. In no other way can efficient management be secured. Dr. Greene is too big a man to be forced out of office by such sordid questions, and if the idea was to hector and punish him, it failed. It is the state, and the people that compose the state, that are punished.

It is to be hoped that the coming legislature will take steps to remove our state institutions from the control of small politicians, thereby rendering the present unfortunate contretemps impossible in the future.

PURITY RUN MAD.

Several months ago The Journal had an editorial on the question of the propriety of teaching sex hygiene in the advanced grades of the public schools, the subject at that time being very much agitated. The Journal opposed it as the wrong place to teach such matters in mixed classes. Ella Flagg Young, the prominent Chicago educator, opposed it on the same ground, and at the convention of the International Educational Association the same ground was taken in opposition. Teachers have most excellent opportunities to study human nature in children, and their views on the subject are worth more than those of all the professional reformers and faddists in the world put together. Children should not be left in ignorance of vital facts, but the home, the mother, the older sister, the natural guardians of a girl, can and should tell her these facts, and boys should likewise be instructed by their fathers or male

guardians. It is quite certain that it is impossible to discuss such matters in mixed classes without arousing a self-conscious pruriency that would be conducive to just the reverse of purity. But now comes the International Purity Congress, at which some of the speakers out-Heroded Herod in extravagant ideas of purity and how to attain it. The great trouble with most reformers is that they have a very strong bias, being of the type of whom Samuel Johnson spoke when he said, "That fellow seems to me to have but one idea, and that is a wrong one."

At the Purity Congress referred to, a woman doctor advocated the widest possible publicity of social diseases. Another woman advocated the monstrous theory that sex hygiene should be taught in the public schools FROM THE PRIMARY GRADES UP!

When such extravagant ideas as these are advanced, one is irresistibly reminded of Dean Swift's whimsical definition of a nice man. "A nice man," he said, "is a man of nasty ideas." And another great writer said, "It is difficult sometimes to tell where modesty leaves off and concupiscence begins." There are thousands of people starting out with holy intentions, perhaps, who become obsessed with the evil they are trying to combat, until they injure the cause they represent by their extravagant statements and ideas. Read some of the literature, for instance, sent out by the so-called "White Slave" crusaders. It is so filled with absurdly exaggerated stories that no man of the world will give credence even to what truths it may contain. One of these lecturing in Little Rock recently made the statement that throughout the United States the toll of traffic was 200 lives self-destroyed every day, whereat his hearers were properly shocked; but they did not stop to consider that the figures would aggregate nearly 75,000 a year, while throughout the United States the government statistics show a grand total annually of only 15,000 suicides from all causes—men and women. This professional reformer would have us believe that five times more fallen women kill themselves every year than there are suicides all told.

It is only on the theory of an obsession that one can reconcile the serious advocacy, on the pretence of purity, of the monstrous idea of filling the minds of children from six to eight years old, with thoughts of sex. That is why fanaticism fails even in a cause itself good.

THE JOURNAL WISHES THE MEMBERS OF THE ARKANSAS MEDICAL SOCIETY A PLEASANT AND ENJOYABLE CHRISTMAS, AND TRUSTS THAT THE NEW YEAR MAY BRING THEM CONTINUED HEALTH, PROSPERITY AND HAPPINESS.

THE RIGHT KIND OF ADVERTISING.

We are pleased to call attention to the advertisement of Frank S. Betz Company, Hammond, Ind., which appears in this issue of *The Journal*. We are pleased not only to get the revenue, but because this kind of advertising appeals to us as one of the best examples of honest business. If the surgical instruments and other products of the firm are not just as represented, if they do not give satisfaction, the firm invites you to send them back and your money will be returned. And this is not advertising "buncomb." The proof that the offer is made in good faith is in the fact that *The Journal of the American Medical Association*, which is exceedingly careful in selecting only the advertisements of reputable concerns, has carried the Betz advertisement for fifteen years, and in all that period we have assurances that only two or three differences have arisen and that they were promptly adjusted.

The Betz company is the only maker of one-piece, all-steel hospital and office white enamel furniture. Among its specialties are chairs, tables, sterilizers, cabinets, beds, hospital furniture, batteries, vibrators, therapeutic lamps, motors, dynamos, static and x-ray machines, x-ray coils, etc., and its products go all over the United States and to every civilized country in the world.

With the enviable record the company has, it is a pleasure to recommend it to our readers, and we would ask them when ordering anything, to be sure to say, "We saw your advertisement in *The Journal of the Arkansas Medical Society*."

FOR SALE—One Wantz X-ray Coil, manufactured by the Victor Electric Company, one Western Coil, 16-inch, manufactured by the Schiedel-Western Electric Company. Both machines suitable for therapeutic and heavy radiographic work. In perfect condition, and at a reasonable price. Address, Dr. A. M. Zell, Bankers Trust Building, Little Rock, Ark. (Adv't.)

Personals and News Items.

Now is the time to pay your dues for 1915.

Dr. W. M. Wear has moved from Ozark to Paris.

Dr. R. B. Dodson has moved from Bay Village to Willow.

Dr. L. H. Callen has moved from Bellefonte to Hindsville.

Dr. W. A. Moore has moved from Hindsville to Rogers.

Dr. D. C. Roberts has moved from Hindsville to Goshen.

Dr. A. G. Pierce has moved from Jonesboro to Newport.

Dr. T. S. Burgess of Altus has moved to Russellville.

Dr. Hugh Huston of Altus has moved to Huntington.

Dr. James C. Huntley of Judsonia visited in Little Rock last month.

Dr. and Mrs. Charles W. Dixon of Douglass visited in Little Rock last month.

Dr. A. B. Bishop of Ashdown attended the Baptist convention in Little Rock last month.

More than two hundred physicians visited in Little Rock last month, attending the railroad and sanitary officers' convention.

Dr. J. L. Greene of Little Rock has resigned as superintendent of the State Hospital for Nervous Diseases and has moved to Hot Springs to engage in private practice.

Dr. F. B. Young, Little Rock, has been elected to succeed Dr. J. L. Greene as superintendent of the State Hospital for Nervous Diseases.

Dr. C. W. Garrison of Little Rock was elected to succeed Dr. F. B. Young as secretary of the Arkansas State Board of Health, effective December 1, 1914.

Dr. St. Cloud Cooper, president of the Arkansas Medical Society, appointed Drs. F. B. Young, Little Rock; O. L. Williamson, Marianna, and William R. Bathurst, Little Rock, a Committee on Hospitals, for the State Society, and to determine the relative standards of the various hospitals in Arkansas.

Dr. E. N. Allen, general surgeon, Chicago, Rock Island and Pacific Railway Company, shows an excellent record at the St. Vincent's Hospital, Little Rock. It appears that from October 31, 1913, to November 1, 1914, 726 patients were treated, with only seven deaths, four of which died from injuries, within twenty-four hours after reaching the hospital.

We ask the co-operation of all our readers in the effort to publish a good medical journal, and to keep our columns clean. Read the advertising pages as carefully as you do the rest of The Journal. You will find them interesting. As you have occasion, use the goods mentioned therein; tell the advertiser that you saw his "ad" in your State Medical Journal.

There are in every county some good physicians who are not members of the county society, and this is a good time to ask them to join. There will be found in the advertising pages a blank application for membership which members are requested to cut out and hand to some physician who is not a member. Secure this application and hand it to the secretary of the county society, or, better yet, take it to the next meeting of your society and stand sponsor for the applicant.

ARKANSAS ASSOCIATION OF IRON MOUNTAIN SURGEONS.

The third annual meeting of the Arkansas Association of Iron Mountain Surgeons was held in Little Rock November 17-18, under the presidency of Dr. Charles S. Holt of Fort Smith. Nearly one hundred were present. The following officers were elected: President, Dr. R. L. Smith; Russellville; vice president, Dr. A. R. Simpson, Corning; secretary, Dr. W. F. Smith, Little Rock.

SANITARY OFFICERS OF ARKANSAS.

The second annual meeting of the sanitary officers of Arkansas met in the Hotel Marion, Little Rock, November 24-25. Dr. S. A. Southall presided.

AMERICAN COLLEGE OF SURGEONS.

More than two thousand delegates from all parts of the United States and Canada attended the third annual meeting of the American College of Surgeons, which was opened in Washington, D. C., on Monday, November 16, under the presidency of Dr. J. M. T. Finney of Baltimore. Six hundred new members were admitted to the college, among them being the following physicians from Arkansas: W. F. Smith, F. Vinsonhaler, Anderson Watkins, Little Rock; George C. Brown, Conway; A. C. Jordan, Pine Bluff; T. F. Kittrell, R. H. T. Mann, Texarkana; H. Moulton, J. D. Southard, W. R. Brooksher, Fort Smith.

SOUTHERN MEDICAL ASSOCIATION.

The eighth annual meeting of the Southern Medical Association was held in Richmond, Va., November 9 to 12, under the presidency of Dr. Stuart McGuire, Richmond, and the following officers were elected: President, Dr. Osear Dowling, Shreveport, La.; vice presidents, Drs. Robinson C. Dorr, Batesville, Ark., and McGuire Newton, Richmond, Va.; Dr. Allen W. Freeman, Richmond, Va., chairman; Dr. James A. Hayne, Columbia, S. C., vice chairman, and Dr. Waller S. Leathers, University, Miss., secretary of the Section on Public Health. Dr. Joseph B. Greene, Asheville, N. C., chairman; Dr. Edward H. Cary, Dallas, Tex., vice chairman, and Dr. Thomas W. Moore, Huntington, W. Va., secretary of the Section on Eye, Ear, Nose and Throat. Dr. Isidore Cohn, New Orleans, chairman; Dr. John H. Blackburn, Bowling Green, Ky., vice chairman, and Dr. Franklin Webb Griffith, Asheville, N. C., secretary of the Section on Surgery. Dr. William H. Deaderick, Hot Springs, Ark., chairman; Dr. Charles L. Minor, Asheville, N. C., vice chairman, and Dr. Stewart R. Roberts, Atlanta, Ga., secretary of the Section on Medicine. Dallas, Tex., was selected as the next place of meeting.

SOUTHERN ASSOCIATION OF RAILWAY SURGEONS.

This association, which is an auxiliary of the Southern Medical Association, met in annual session in Richmond, Va., on Monday, November 9. Dr. Duncan Eve of Nashville, Tenn., presided. One hundred and twenty-five surgeons, representing nearly every railroad in the South, attended, many taking part in the discussions, and the meeting was in all respects the most successful ever held by the organization. The following officers were elected: President, Dr. Thomas H. Haneock of Atlanta, Ga.; vice president, Dr. Southgate Leigh of Norfolk; secretary, Dr. Clarence H. Vaught of Richmond, Ky.

MEDICAL ASSOCIATION OF THE SOUTHWEST.

At the ninth annual meeting of the Medical Association of the Southwest, held in Galveston, Tex., November 10 and 11, the following officers were elected: President, Dr. Jefferson D. Griffith, Kansas City, Mo.; vice presidents, Drs. Ernest F. Day, Arkansas

City, Kan.; Thomas H. Flesher, Edmond, Okla.; Arthur E. Sweatland, Naeogdoches, Tex., and Estill D. Holland, Hot Springs, Ark.; secretary-treasurer, Dr. Fred H. Clark, El Reno, Okla. (re-elected for the tenth time), and Executive Committee, Drs. Matthew M. Smith, Dallas, Tex.; John H. Barnes, Enid, Okla.; Jacob G. Dorsey, Wichita, Kan.; William H. Stauffer, St. Louis, and Edward H. Martin, Hot Springs, Ark. The association approved the adoption of The Southwestern Journal of Medicine and Surgery as the official organ of the association. Oklahoma City was selected as the next place of meeting and the secretary was directed to extend an invitation to the state medical bodies of Colorado, New Mexico and Louisiana to affiliate with the association.

TRI-STATE MEDICAL ASSOCIATION.

The thirty-first annual meeting of this association, whose membership is composed of physicians from Tennessee, Arkansas and Mississippi, was held in Memphis, November 17, 18 and 19, under the presidency of Dr. John Darrington of Yazoo, Miss. The meeting was in every respect a success. Dr. W. P. Hicks of Earle, Ark., was elected president, and vice presidents were elected as follows: For Tennessee, Dr. Vernon Dickson of Covington; for Mississippi, Dr. E. R. McLean of Cleveland; for Arkansas, Dr. J. L. Hare of Wynne. Dr. J. L. Andrews and Dr. J. A. Vaughan of Memphis were re-elected secretary and treasurer, respectively.

LEO N. LEVI MEMORIAL HOSPITAL.

The new Leo N. Levi Memorial Hospital of Hot Springs, which was built by the Order of B'nai Brith, various lodges all over the country contributing, was opened to receive patients on November 2. It is a charitable institution for the benefit of patients referred by organized charities. The staff includes the following physicians:

Medical Board—W. V. Laws, M. D., chairman; W. H. Deaderick, M. D., secretary; O. E. Biggs, M. D.; J. C. Minor, M. D.; S. D. Weil, M. D.

Visiting Surgeon—W. V. Laws, M. D.

Associate Visiting Surgeon—J. H. Chesnutt, M. D.

Assistant Visiting Surgeons—E. H. Ellsworth, M. D.; J. M. Proctor, M. D.; W. L. Snider, M. D.

Visiting Physicians—W. H. Deaderick, M. D.; S. D. Weil, M. D.; O. E. Biggs, M. D.
Associate Visiting Physicians—A. H. Cook, M. D.; J. P. Randolph, M. D.

CONSULTING STAFF.

Medicine—T. E. Holland, M. D.; G. A. Hebert, M. D.; F. W. Jelks, M. D.; W. M. Dake, M. D.; J. S. Wood, M. D.

Surgery—Francis A. Winter, lieutenant-colonel medical corps, U. S. A.; S. P. Collings, M. D.; A. U. Williams, M. D.; L. H. Barry, M. D.

Neurology—C. T. Drennen, M. D.; J. L. Greene, M. D.

Dermatology—H. P. Collings, M. D.; J. T. Jelks, M. D.; M. Haase, M. D., Memphis; Isadore Dyer, M. D., New Orleans; M. F. Engman, M. D., St. Louis.

Eye, Ear, Nose and Throat—P. T. Vaughan, M. D.; Z. N. Short, M. D.; J. F. Rowland, M. D.

Hydrotherapy—A. S. Garnett, M. D.; J. C. Minor, M. D.

Pathology—M. F. Mount, M. D.; Loyd Thompson, M. D.

Dental Surgery—A. H. Cohen, D. D. S.; O. W. Huff, D. D. S.

VERMONT'S POISON LESSON.

FOURTEEN DEATHS WERE CAUSED BY WOOD ALCOHOL—SECRETARY OF THE COMMITTEE FOR PREVENTION OF BLINDNESS POINTS OUT THE DANGER IN THE IMPROPER LABELING OF POISONOUS SPIRITS.

The recent tragedy in Vermont, in which fourteen persons were killed and a number of others blinded by drinking whiskey adulterated with wood alcohol, brings forcibly to mind the fact that legal provisions throughout the country are inadequate to prevent wood alcohol poisoning. The Vermont incident is an example of what happens every little while in other states.

A very recent instance is that of a number of Armenian rug weavers in New York City who were poisoned by drinking anisette, consisting largely of wood alcohol. Three of the men died, and two were blinded. As the groceryman who sold the anisette and the man who manufactured it have no property, it is not possible to secure damages for those who were blinded, nor for the widows of the men who died. These cases may be prosecuted by the district attorney and small fines im-

posed, the payment of which would simply enrich the state, but in all probability have little or no effect upon the problem as a whole.

The difficulty goes further back than even the small manufacturer—that is, to the producers of wood alcohol who rectify this poison so highly that it cannot be distinguished from grain alcohol, known to the trade as cologne spirits. This rectified wood alcohol, possessing all of its original poisonous qualities and closely resembling grain alcohol, is put on the market under various misleading names, among them being colonial spirits. As cologne spirits and colonial spirits look, smell and taste alike, we cannot wonder that the poisonous alcohol is sometimes used instead of the nonpoisonous spirit.

VERMONT DRUGGIST MISLED, HE SAYS.

The Vermont druggist claims that he ordered, and thought he was using, cologne spirits, but that he was actually sold the poisonous colonial spirits.

During the last session of the New York state legislature, the Committee for the Prevention of Blindness endeavored to have passed a law designed to prevent wood alcohol poisoning. At the public hearing on this bill, the danger of confusing cologne and colonial spirits was emphasized by the president of the State Pharmaceutical Association. He described a case in which a druggist ordered cologne spirits, or grain alcohol, to use in preparing his tinctures, extracts, etc. In response to his order he received a five-gallon can labeled "Col. spirits." For some reason this druggist analyzed the contents of the can, and found it to be wood alcohol, the "Col. spirits" evidently being used as an abbreviation for both colonial and cologne spirits. Since as little as a teaspoonful of wood alcohol has caused blindness, this man's precaution evidently averted just such a tragedy as has occurred in Vermont.

In spite of the abundance of such evidence as this concerning the dangers of allowing wood alcohol to be sold under present conditions, those interested in the manufacture of this product were successful in their efforts to have the committee's bill defeated.

The New York City Department of Health has recently amended its sanitary code to require all forms of wood alcohol to be labeled "wood naphtha" and to bear the poison label, together with the skull and cross-bones. This is the most definite step that has thus

far been taken in this country toward preventing wood alcohol poisoning from imbibition. This requirement, however, will be effective only in New York City, and will have no bearing upon poisoning following the inhalation of wood alcohol fumes in the industries.

Throughout the State of New York the combined provisions of the state liquor, pharmacy and agricultural laws are at present inadequate to prevent death and blindness from swallowing and inhaling wood alcohol.

When by state law or through rulings made by the state departments, all forms of wood alcohol are labeled poison, as is required by the New York City Department of Health, and wood alcohol in the industries is replaced by industrial (denatured) alcohol, we shall cease to hear of these pathetic and wholesale disasters.

THE CRY OF THE FRENCH PATRIOT.

The war lords are coming with the tread of marching feet,
Their comrades advancing at a pace both set and fleet.
They are coming, my countrymen, their hand is at our door;
Shall we open to our enemy that the war may soon be o'er?
They tell us that submission may be the best for our dear land,
To save La Belle Dame France from the iron German hand.
They will drench our fields with blood from the flower of chivalry,
They will rifle our fair cities, our lovely cities by the sea;
They will leave us sad and broken, with no heart for future days;
Our harps will all hang shattered, stunned to silence our martial lays.
Shall we submit, O men and brothers, to the tyrant's stern command?
Or, shall we rise up in our might, fighting to the very last lost man?
Would we rather face our children with a tale of arms laid down,
Or leave to them our memories how after victory were our poor dead found,
Clasping to the last brave stand our flag, the flag that ne'er was furled
To the gruff command of Germans, but in their face defiance hurled?
Ten thousand times ten thousand our last answer shall be no;
We will fight for our dear country till our pulse-beats all run slow,
Till the last red drop of blood from our loyal hearts shall flee,
Rejoicing, O dear country, that 'twas given, yes, given all for thee!
Then let us up and smite them, though our fighting be in vain,
Though perhaps for lovely France we may never fight again;
But, please heaven, we will help her, help her, to our last drawn breath,
And what more can patriot soldier do—serve his country to his death.—C. R. S.

Abstracts.

THE PALPATION OF ARTERIES.

"By palpation," writes Osler in connection with the diagnosis of arteriosclerosis, "we are enabled to judge with fair accuracy the degree of thickening of the vessel wall. It requires not only experience, but also education, to form a correct judgment on the state of the arteries. A perfectly normal vessel, when contracted, may feel hard and cordlike. On the other hand, in a radial definitely thickened, but in a state of extreme relaxation, the hardening of the walls may escape detection. The state of the tissues about the artery, the amount of fat in the skin, the size and fullness of the veins—all have to be considered. One of the commonest of mistakes is to regard as thickened any vessel one can roll under the finger. But in a state of very high tension, and if very full, the arterial tube may feel cordlike. To estimate the presence of sclerosis it is not sufficient to examine the radials and temporals."

"It is as difficult at times, as it is important," says The Journal of the American Medical Association, "to recognize the difference between the hard sensation conveyed to the finger by a high-tension pulse and that conveyed by stiffening of the arterial walls. The two may even coexist. If the palpation of the arteries is to reach the dignity of an accurate aid to diagnosis, it becomes necessary to be able to correlate the tactile impressions of the physician with the true anatomic and functional conditions of the vessels he is examining. A few competent investigators have actually compared the subjective impressions gained by palpation of the radial arteries with the structural conditions revealed in the same vessels on examination post mortem. The conclusions are far from concordant in respect to the sufficiency of the judgment of the respective observers. One group has gained the distinct impression that the palpability of the vessels actually depends on the relative thickening of the arterial wall, the thickening of the intima preponderating over the hypertrophy of the media. Another group of clinicians has reached an utterly skeptical conclusion. They have compared the histologic picture of the vessels examined with the recorded judgment of the clinician who previously examined them by palpation. Many of the arteries which felt at most only slightly rigid showed marked sclerosis of the intima; others, in turn, which

exhibited pronounced rigidity on skillful palpation were free from significant histologic changes. There is no question as to the competence of the observers in these different cases; they rank among the leaders in American and European medicine. The impartial judge has inevitably been constrained to the tentative conclusion that the strength of the middle coat of the arteries and the varying conditions of tonus of the arterial musculature must be of some moment in the palpation of blood vessels."

BRIGHT'S DISEASE.

The use of sodium chlorid by hypodermoclysis and by the drop method by rectum is recommended in the treatment of nephritis and edema by H. Lowenburg, Philadelphia (Journal A. M. A., November 28, 1914), who reports a number of cases. From his observation he says that sodium chlorid neither produces nor increases water retention in either the nephritic or non-nephritic. It is curative, he claims, in edema from any cause if the kidneys are not too severely damaged and it does not cause edema in marantic infants. When combined with an alkali and plenty of water its effects are good on all the symptoms of nephritis. It is dangerous to use alkalies under the skin, as they may cause sloughing, and the best means of administering the salt and alkali solution is either by rectum or intravenously.

FUNCTIONS OF A CITY HOSPITAL.

A pamphlet issued by the Department of Public Welfare of the City of Cleveland deals with the history, functions and possibilities of the Cleveland City Hospital. "The following statement," says The Journal of the American Medical Association, "indicates that those in charge of this hospital have a clear conception of the inevitable service to the public which can be rendered by a great municipal hospital if properly conducted: 'A municipal hospital is an institution of organized society provided by a city to care for the sick. It is but a medical means to a social end, and this end—public welfare—must never be forgotten. The modern hospital has outgrown the narrow field of boarding and treating sick people, and the time has come when a proper city hospital can no longer passively receive the sick from the community at large, without regard for the reason why they became sick, use them chief-

ly as material and often discharge them without the slightest interest in their convalescence and rehabilitation in wholesome living and working conditions. Hospitals more than any other social agency accumulate the evidence against the dangers to life in the community, dangers from contagion, from ways of living and from industry, and they must feel the responsibility to study this evidence and become leaders in the progress of prophylactic medicine. The idle convalescent is of no more value in a community than the bed-ridden, and scarcely less expensive to support. It is not only charity and social service, but also sound economy for a city to supervise convalescence; to make it such that the patient can return to his work the sooner. A city hospital of today must continue to give to a community scientific care for its sick and must afford opportunities both for scientific investigation and for the education of physicians, nurses and orderlies. But above all, it must, through its social service work and through co-operation with all other community social agencies, give a watchfulness over public health and results that will result in more days of life, work and happiness to its citizens.' "

MOUTH INFECTION.

E. C. Rosenow, Chicago (Journal A. M. A., December 5, 1914), also took part in the symposium on mouth infection in the Section on Stomatology of the American Medical Association at its last meeting. Interesting results, he said, have been obtained in the study of various systemic disorders, such as rheumatism, arthritis and Hodgkins' disease. One striking thing noticed with some of the more clinical infections is that the connection of the micro-organisms found in the lesions may be quite different from that of those in the focus of infection at the same time. This does not minimize the importance, however, of the focus. The organisms in the tissues may have undergone a change. This fact should be borne in mind in the use of autogenous vaccines. While the most common location of the focus in the various infections is probably in the head, it may be located elsewhere. Thus, in two cases of typical rheumatism, he succeeded in isolating the streptococcus rheumaticus from the stools, and in other cases from an infected ingrowing toe nail, and from a wound in the thumb. The abscesses, or changes found in the roots

of the teeth in various systemic diseases, especially in chronic arthritis, may or may not be primary; but if found, the condition should be corrected, because vaccination or other treatment largely fails as long as an active focus of infection exists. In the light of our present knowledge, the argument that infections of the mouth are so common in apparently healthy individuals does not minimize their importance. We must keep in mind that failure sometimes results from not finding the exact cause for focus. He refers to some cases which illustrate these points, two or three of which have been alluded to already. The question of a focus of infection is not only a matter for the dentist and stomatologist, but for the general practitioner and surgeon. Every branch of medicine needs to be considered to run the matter down, and identify the real cause. Another point to determine is what kind of organisms act on individual tissues. There are, he says, various properties that determine the affinity of the micro-organism for the tissue. He is sure they exist, but where are they formed? He thinks it is quite clear that they develop these properties in the focus of infection, which must be worked on as not merely places of infection, but as the place of entrance where the various organisms acquire their various infections.

PREVENTIVE OTOLARYNGOLOGY.

B. R. Shurly, Detroit (Journal A. M. A., December 5, 1914), in his chairman's address before the Section on Laryngology, Otology and Rhinology at the late meeting of the American Medical Association, says that the pages on preventive methods in this specialty are few, notwithstanding the importance of prevention of otolaryngologic diseases. A few special points which he mentions are the compulsory labeling of the poisons sold by grocers, the problem of noise and its deleterious effect on the auditory nerve, and the effect of dust on the upper air tract, as all worthy of attention and calling for special legislative provision. There should be a society for the prevention of dangers to health. He asks, Are we sufficiently conscious of the dangers of rhinitis, pathologic tonsils, adenoids or accessory sinus disease? The faucial tonsil, as an embryonic remnant, deserves further research and he hints that too much surgical zeal is to be especially avoided.

Propaganda for Reform.

ECKMAN'S ALTERATIVE.—Eckman's Alterative is a "consumption cure" patent medicine consisting essentially of alcohol, calcium chlorid and cloves. Now, the Eckman concern is running a series of advertisements in which medical writings on the use of calcium in tuberculosis are twisted into recommendations for the nostrum. (Journal A. M. A., November 7, 1914, p. 1686.)

THE FRIEDMANN TREATMENT.—An investigation made by the United States Public Health Service of the validity of the claims made for the Friedmann treatment of tuberculosis is a complete refutation of Dr. Friedmann's claims, not only as to having developed a specific cure for tuberculosis, but also as regards the harmlessness of the treatment. The report of the investigation shows the flimsy evidence on which the Friedmann method for the treatment of tuberculosis was based. (Journal A. M. A., November 7, 1914, pp. 1673 and 1690.)

THE ACTION OF IODIDS ON BLOOD VESSELS AND HEART.—The iodids, especially potassium iodid, have been credited with having a blood pressure lowering action and have been used extensively in the treatment of arteriosclerosis. D. I. Macht has demonstrated that the iodid ion, instead of depressing the heart and vessels, has a marked stimulating action and that if potassium iodid lowers blood pressure it must be the effect of the potassium part of the compound. (Journal A. M. A., November 14, 1914, p. 1767.)

AGAR-LAC.—Agar-lac, sold by E. Fougere & Co., is stated to be composed of "Agar-agar with lactic ferments grs. 4½, phenolphthalein grs. ½." Regarding the "lactic ferment," the expert of the Council on Pharmacy and Chemistry reported that bacillus bulgaricus were present in small numbers only, and that there were at least two other bacteria present. The council refused recognition to Agar-lac, because its composition is not correctly declared, because it is exploited in a way to cause laymen to use it to their detriment, because unwarranted therapeutic claims are made for it, because its name does not indicate the most potent constituent, phenolphthalein, and because the use of a ready-made combination of cathartic drugs with lactic acid ferments is unscientific. (Journal A. M. A., November 14, 1914, p. 1777.)

ASEPTICONES.—Asepticones, sold by the Chinosol Company, are vaginal suppositories stated to contain salicylic acid, boric acid, quinin and ehinosol. On the basis of the evidence submitted, the Council on Pharmacy and Chemistry voted that Asepticones be refused recognition because unwarranted and misleading therapeutic claims are made, because the name does not indicate the potent constituents, and because it was considered an unscientific shotgun mixture. (Journal A. M. A., November 14, 1914, p. 1778.)

BACILLICIDE.—Bacillicide, sold by the Prophitol Products Company, Richmond, Va., is an unscientific solution of the glycothymoline type. It was refused recognition by the Council on Pharmacy and Chemistry because its composition is secret, because unwarranted and exaggerated claims are made for it, and because the use of complex mixtures of uncertain composition is unscientific and contrary to the best interests of the public. (Journal A. M. A., November 14, 1914, p. 1778.)

IRON SOLUTION FOR INTRAVENOUS THERAPY.—This solution, manufactured by Perkins & Ross, Colorado Springs, Colo., contains soluble iron phosphate as its essential constituent and is recommended as a "chalybeate, emmenagogue and tonic." As the intravenous administration of a drug like iron, which must be continued for long periods, cannot be considered the method of choice, as the composition of the solution is such that changes may occur on standing, etc., which would make the preparation dangerous, and as the method of marketing the solution does not insure its sterility, further increasing the danger of its use, the product was refused recognition by the Council on Pharmacy and Chemistry. (Journal A. M. A., November 14, 1914, p. 1778.)

MAIGNEN ANTISEPTIC POWDER.—This powder, exploited by the Maignen Institute, Philadelphia, is stated to be composed of calcium hydroxid, sodium carbonate, aluminum sulphate and boric acid, and its action depends on the sodium hydroxid which forms when the powder is treated with water. It is advertised both to physicians and the public by means of claims which are extravagant, preposterous and dangerous. Thus a pamphlet gives directions for the sterilization of the nose, throat, stomach, lungs, eyes, gums, mouth and the genito-urinary tract. Its use

is claimed to prevent blood poisoning, lockjaw, hydrophobia and infectious diseases, and mothers are invited to treat their babes' ailments with it. (Journal A. M. A., November 14, 1914, p. 1778.)

RADIUM EMANATION ACTIVATORS.—Outfits for charging drinking water with radium emanation are now widely and extravagantly exploited. For an apparatus which imparts 2,500 Mache units to water each day, as much as \$200.00 is asked. Theoretically, 72 cents' worth of radium can produce 2,500 Mache units of emanation per day. Even if, because of mechanical difficulties, twenty times as much radium were required to be present in the activator, the cost of the radium in this \$200.00 apparatus would be only \$14.40. (Journal A. M. A., November 14, 1914, p. 1780.)

LYSOFORM.—Lysoform and crude lysoform, made by the Lysoform Gesellschaft, Berlin, Germany, are solutions of potash-soap stated to contain respectively 6, 7 and 10 per cent of formaldehyde. These preparations were refused recognition by the Council on Pharmacy and Chemistry because unwarranted claims were made in regard to their efficiency and because their indiscriminate use for the treatment of diseases was recommended. (Journal A. M. A., November 21, 1914, p. 1870.)

PHECOLATES, PHECOLAX, PHECOZYMES AND PHECOTONES.—These are tablets put out by F. Waldo Whitney, designed to form part of a system of treatment founded on the theory of autotoxemia. The different mixtures consist in the main of well-known remedies, some of them containing ten constituents. Most extravagant claims are made for these mixtures. The Council on Pharmacy and Chemistry voted to refuse them recognition as unscientific shotgun mixtures, and because the names do not indicate their potent constituents. (Journal A. M. A., November 21, 1914, p. 1870.)

SERUM VACCINE, BRUSCHETTINI.—This vaccine, sold by R. G. Berlingieri, New York, has for its aim the destruction of the tubercular cell and the facilitation of its elimination by the natural expulsive processes. The manufacturer not having submitted proof of the value of the preparation, the Council on Pharmacy and Chemistry voted that it be refused recognition. Later, information was received that the preparation was now used

only in slight cases. (Journal A. M. A., November 14, 1914, p. 1870.)

SHERMAN'S NONVIRULENT TUBERCLE VACCINE.—This product of G. H. Sherman, Detroit, was refused recognition by the Council on Pharmacy and Chemistry because the far-reaching claims made for it were not substantiated by suitable evidence. (Journal A. M. A., November 21, 1914, p. 1870.)

WHITE SULPHUR SALTS.—This is an effervescent salt put on the market by the White Sulphur Springs, Inc. It was refused recognition by the Council on Pharmacy and Chemistry because it did not represent the water of White Sulphur Springs, Va., as claimed. (Journal A. M. A., November 21, 1914, p. 1870.)

UNGUENTUM SELENIO VANADIC, V. ROEMER.—This ointment, marketed by Schering & Glatz, New York, is claimed to contain selenium oxyanid and vanadium chlorid. No evidence of the value of the preparation either in carcinoma or in any of the very long list of other diseases in which it is recommended was submitted. The pharmacologic evidence that such a preparation would be of value in such conditions being practically nil, the Council on Pharmacy and Chemistry refused recognition to the product. (Journal A. M. A., November 21, 1914, p. 1870.)

IODIA.—Iodia (Battle & Co.) is claimed to contain potassium iodid in combination with iron phosphate and vegetable "principles." It is extravagantly recommended for use in many and varied conditions. It is asserted to be "almost a specific" in eczema and rheumatism and "a highly efficient form of iodine." The A. M. A. Chemical Laboratory having shown that untrue statements in regard to the composition and preparation are being made, the Council on Pharmacy and Chemistry refused recognition to Iodia on this account: because unwarranted therapeutic claims were made, and because the use of this complex mixture is unscientific and a detriment to the profession and the public. (Journal A. M. A., November 21, 1914, p. 1871.)

NARCOPHIN.—Narcophin consists of morphin meconate and narcotin meconate in molecular proportions. It is claimed to be a specific substitute for opium and to have advantages over morphin. The Council on Pharmacy and Chemistry was unable to accept the therapeutic claims made for it. (Journal A. M. A., November 21, 1914, p. 1872.)

Married.

REAGAN-STEARN.—In Little Rock, on Tuesday, October 27, Dr. Luther D. Reagan and Miss Helen Mae Stearns, both of Little Rock.

ALLEN-WEBB.—In Topeka, Kan., on Wednesday, November 25, Dr. Eben N. Allen of Little Rock, Ark., and Mrs. Josephine K. Webb of Topeka, Kan.

A TIMELY QUESTION.

What are you going to do with your drug and alcohol habitues? Professional opinion has advanced to the position of regarding these addictions as a disease which is amenable to treatment. Sanitarium care is necessary to the successful handling of such patients, but with the aids afforded by a well-equipped institution, the results of treatment are very satisfactory.

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The complete work of Dr. Pettey, a volume of more than 500 pages, can be had of him, or of the publishers, F. A. Davis Co., Philadelphia. (Advertisement.)

County Societies.

JEFFERSON COUNTY.

(Reported by J. T. Palmer, Sec'y.-Treas.)

The Jefferson County Medical Society held its regular monthly meeting on Tuesday evening, November 3. Present: Drs. Woodul, Breathwit, Crump, Stewart, McMullen, Caruthers, John and Palmer. The evening was devoted largely to reporting clinical cases. Many good points were drawn out during the discussions. The application of Dr. Asa Brunson for reinstatement was referred to the Board of Censors.

The Jefferson County Medical Society met in regular session Tuesday evening, December 1, 1914, with the following members present: Drs. Crump, Woodul, Jordan, John, Caruthers, Breathwit, Blankenship, McMullen, Troupe and Palmer.

A most excellent paper by Dr. W. M. Breathwit on "Vineent's Angina" was well received and enjoyed by all present. Some new and interesting features were discussed by the essayist.

The application of Dr. Asa Brunson was tabled indefinitely.

The secretary's report for 1914 was read before the society as follows: Meetings held, 9; papers read, 4; social functions, 1; average attendance (not including present meeting), 7.7. Number of times each member attended: Drs. Blankenship, 4; Breathwit, 9; Crump, 7; Caruthers, 2; Luek, 4; Lemon, 2; Jordan, 5; John, 5; Palmer, 9; Shelton, 2; Spillyard, 2; Woodul, 9; McMullen, 6; Stewart, 7; Doss, 4; Lowe, 1; H. E. Williams, Sr., 1; Troupe, 1. Those who were not present during the entire year: G. A. Glover, J. S. Jenkins, E. C. Pyatt, F. C. Rowell, J. W. Seales, J. S. Smith, A. G. Thompson, H. E. Williams, Jr., J. W. Withers and C. E. Wright. Total membership, 29. Members added, 3. Deaths (in society), 1.

A vote of thanks was extended the secretary for the report for the year.

Dr. E. C. McMullen was elected president without opposition, and it was moved and carried that the secretary cast the vote. Dr. J. F. Crump was elected to vice president under the same conditions as above stated. Dr. C. K. Caruthers was elected as secretary-treasurer.

Refreshments were served and the evening was greatly enjoyed by all.

PULASKI COUNTY.

(Reported by W. T. McCurry, Secretary.)

The following resolution was passed at the regular meeting of the Pulaski County Medical Society, held November 30, 1914:

"Resolved, That in the interest of the unfortunate wards of our state confined in the Arkansas Hospital for Nervous Diseases, and in behalf of the good name of our state, this society severely condemns the recent acts of the State Board of Charities, whereby the tenure of office of superintendent, efficiently occupied by Dr. J. L. Greene, was made so disagreeable that, in self-respect, he was forced to resign from the hospital.

"Resolved, That we hereby warn all of the citizens of Arkansas, and particularly those of them personally interested in the welfare of the patients therein confined, that the same methods referred to above will soon

bring not only discomfort and suffering upon the helpless inmates of the institution, but will give our state a most unenviable reputation not only for backwardness, but for inhumanity."

LAWRENCE COUNTY.

(Reported by H. R. McCarroll, Sec'y.)

The Lawrence County Medical Society held its regular session at Walnut Ridge, in the secretary's office, November 4. President G. Max Watkins was in the chair and called the meeting together.

The minutes of the previous meeting were read and approved.

It was the intention of the Program Committee to have a symposium on genito-urinary diseases, but only two of the essayists were present with their papers.

J. C. Swindle read his paper on "The Diagnosis of Gonorrhea and Dangers of Posterior Urethritis," and G. A. Warren opened the discussion.

G. A. Warren read a paper on "Local and Vaccine Treatment of Gonorrhea," and Earle Thomas opened the discussion.

Afterward a general quiz on genito-urinary diseases brought out some interesting and instructive points in handling this class of diseases, and covered quite a lot of the ground.

The following members were in attendance at the meeting: J. W. Morris, H. R. McCarroll, E. T. Ponder, W. A. Smith, J. C. Swindle, Earle Thomas, C. C. Townsend, G. A. Warren and G. Max Watkins.

It was decided to devote the December meeting to a business session.

The Lawrence County Medical Society held its regular monthly meeting in the office of its president, in Walnut Ridge, on Wednesday, December 3. The meeting was devoted to routine matters exclusively. Many things pertaining to the financial side of our life were discussed.

Officers for the ensuing year were elected as follows: J. H. Stidham, president; J. W. Morris, vice president; C. C. Townsend, secretary; T. C. Neece, delegate to State Society; W. J. Robinson, alternate delegate; G. Max Watkins, censor.

ARKANSAS COUNTY.

(Reported by M. C. John, M. D., Sec.-Treas.)

The Arkansas County Medical Society met in Stuttgart October 13. The following members were present: Drs. Moorhead, Mor-

phew, Sillin, Fowler, Hill, Swindler and John. Dr. C. W. Richardson of Memphis was a visitor.

The application of Dr. Homer Dickens of St. Charles was read and referred to Board of Censors.

The resolution making five dollars the minimum fee for old line life insurance examinations was passed.

Dr. A. Fowler reported a very interesting case of tetanus.

This being the annual meeting, the following officers were re-elected: Dr. A. Fowler, president; Dr. B. L. Hill, vice president; Dr. M. C. John, secretary and treasurer; Drs. W. W. Lowe, W. H. Boswell and E. B. Swindler, Board of Censors; Dr. W. H. Moorhead, delegate to State Society, and Dr. L. H. Morphew, alternate.

Society adjourned to meet in Almyra the second Tuesday in January, 1915.

MILLER COUNTY.

(Reported by L. H. Lanier, See'y.)

The Miller County Medical Society met November 13, 1914, in the directors' room of the State National Bank Building, with the following present: Drs. Grant, Dale, Middleton, White, Lee, C. A. Smith, Mann, Kosminsky, Lanier, Hunt, Watts and Dixon.

A paper was read by Dr. Rodney Dale on "Ductless Glands," which was liberally discussed and enjoyed by all present.

Dr. C. A. Smith read a paper on "Radium—Its Field of Usefulness and Application," which was appreciated by every member of the society.

No further business appearing, the society adjourned.

FRANKLIN COUNTY.

(Reported by Thos. Douglass, See'y.)

The Franklin County Medical Society held its regular meeting October 6, with Dr. Harrod presiding. Drs. Williams, Porter, Warren, Blackburn and Douglass were present.

We had with us a distinguished visitor, Dr. T. M. Fly of the Hookworm Commission. The doctor had a microscope with him and exhibited some worms and ova and talked interestingly of hookworm. We are glad to know that he found a very small percentage of infection in this county.

Dr. Williams read an interesting paper on "Erysipelas." The discussion which follow-

ed showed ichthyol to be the remedy receiving the strongest recommendation. Toward the close of the meeting the discussion became informal and general, covering some very interesting experiences.

The November meeting was held on the regular date, Tuesday, 3d. The president, Dr. Blakely, was on hand this time and paid in his dollar for being absent at the last meeting. Others present were: Drs. Porter, Harrod, Williams, Blackburn, Warren and Douglass.

There was an interesting discussion on "Treatment of Epithelioma," which developed considerable difference of opinion.

Dr. T. B. Blakely read a good paper on "Ichthyol." The remedy was reported as one of the few really important drugs, being extremely useful in a large variety of conditions, "from pellagra up or down," in all sorts of Arkansas diseases.

Dr. Harrod reported a case of "Stokes-Adams" disease.

Dr. Blakely reported a case which was suspected by the patient to be "black horse fever."

As the next meeting will be the last one of the year, the president requests that every member prepare a paper or present a case report, and we shall have an evening session and wind up the best year of our history with a banquet. New officers will be elected and every member will be expected to pay his dues.

FOOT AND MOUTH DISEASE IN THE HUMAN.

"Foot and mouth disease may affect human beings, especially children," says The Journal of the American Medical Association, "being transmitted by milk from diseased cows (experimentally verified) and by butter and cheese made from such milk as well as through wounds and in other ways. While the course usually is favorable, an epidemic described by Siegel had a mortality of 8 per cent. The manifestations are fever, digestive disturbances and vesicular eruption on the lips, the oropharyngeal lining ('aphthous fever') and sometimes on the skin. Where there is danger of contamination of the milk with the foot and mouth virus, thorough pasteurization of all milk and milk products is doubly indicated."

Book Reviews.

COLLECTED PAPERS BY THE STAFF OF ST. MARY'S HOSPITAL (MAYO CLINIC) FOR 1913.—Octavo of 819 pages, 335 illustrations. Philadelphia: W. B. Saunders Company, 1914. Cloth, \$5.50 net.

This book constitutes a collection of papers from the staff of St. Mary's Hospital (Mayo Clinic).

The table of contents gives twenty-six papers pertaining to the alimentary canal, thirteen to the urinogenital organs, fifteen to the ductless glands, eleven to the head, trunk and extremities, eight to technic, and five listed as general papers.

With over three hundred illustrations it makes an extremely interesting volume.

A TREATMENT ON CLINICAL MEDICINE.—By William Hanna Thomson, M. D., LL. D., formerly professor of practice of medicine and of diseases of the nervous system in the New York University Medical College; ex-president of the New York Academy of Medicine, etc. Octavo volume of 667 pages. Philadelphia: W. B. Saunders Company, 1914. Cloth, \$5.00; half morocco, \$6.50.

In writing this book, the aim of the author has been to serve the physician while he is actively engaged in the performance of his professional duties.

The introduction gives a chapter on "Mechanism of Surface Chill, or Catching Cold;" "Significance of Common but Important Symptoms—Pain, Emaciation, Cough, Dyspnea, Edema, Vomiting;" "Remedies—Nonmedicinal, Medicinal, Vaccine and Serum Therapy."

Part II contains five chapters on "The Infections."

Part III contains twenty-two chapters on "Diseases of Special Tissues of Organs."

THE PRACTITIONER'S VISITING LIST FOR 1915.—Four styles: weekly, monthly, perpetual, sixty-patient. Pocket size; substantially bound in leather with flap, pocket, etc.; \$1.25 net. Lea & Febiger, Publishers, Philadelphia and New York.

This is a practical convenience which, once possessed by the busy medical man, immediately becomes indispensable. It is a matter of common remark that most forms of pocket memoranda are admirably designed to further the immediate and permanent loss of the data it is desired to preserve. This, happily, is not the case with this carefully designed visiting list and pocket consultant, which is the final evolution of thirty years' experience in meeting and anticipating the needs of the practicing physician. It affords a simple and complete system for keeping the records of

daily practice. In addition to the ruled pages for daily calls and their notes, general memoranda, addresses, cash account, etc., it contains specially arranged spaces for data desired for permanent record such as births, deaths, etc.

ARSENIC IN THERAPY.

In an editorial on "The Historical Perspective in Medicine," The Journal of the American Medical Association for October 10 considers the history of the use of arsenic. This drug, it says, "has indeed a most interesting therapeutic history, and at various times has been in vogue for different diseases. Again and again it has been advanced as a rival of mercury in syphilis. It is almost the only drug that has ever been seriously advocated as a competitor of quinin in chronic malaria, though occasionally, even in acute stages, some special form of arsenic has been recommended. Now that we know that syphilis is due to a parasite biologically resembling the *Plasmodium malariae*, that is, an animal rather than a plant parasite, this effect of arsenic is not surprising. It has, however, in malaria, never achieved the success of quinin. The knowledge of the many previous experiences with arsenic should prevent enthusiastic acceptance of any new form of arsenic therapy until it has been thoroughly tried.

ERYTHEMA AND TUBERCULOSIS.

O. H. Foerster, Milwaukee (Journal A. M. A., October 10, 1914), calls attention to the frequent association of erythema nodosum with tuberculosis. The views of authors seem to differ and Foerster reviews some of the principal articles on the subject and reports two cases occurring in sisters, in both of which he considers the diagnosis of tuberculosis clear. The association, he thinks, is more than accidental. If we consider erythema nodosum an infectious disease due to a specific micro-organism we can adopt the suggestion of Abt, that it acts like other infectious diseases in preparing the soil. The germ of erythema nodosum has not yet been definitely determined, and there has been experimental evidence that indicates that in some cases tubercle bacilli were present in the blood at the time of the eruption and in the lesions themselves. He says erythema nodosum occurring in young children with a family of personal history of tuberculosis should be regarded with suspicion, and perhaps as indicative of the change of a latent or unsuspected focus of tuberculosis into the active stage.

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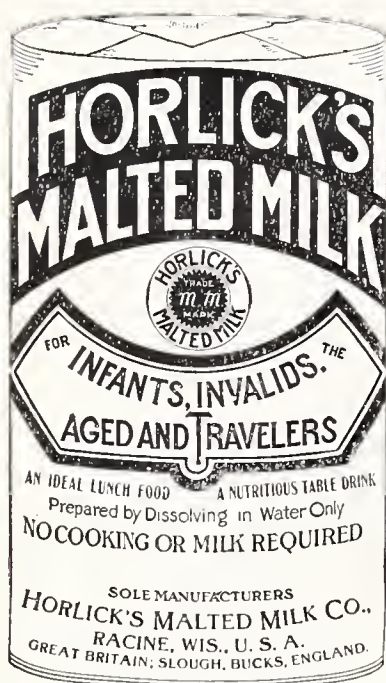
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Original Articles.

WHAT THE LAITY, AS WELL AS THE DOCTOR, SHOULD KNOW ABOUT TUBERCULOSIS, AND WHY.*

By S. E. Thompson, M. D., Asst. Supt. State Tuberculosis Sanatorium,
Carlsbad, Tex.

Before discussing what the laity should know about tuberculosis, a brief history showing the development and revolution of our knowledge of tuberculosis in the past twenty-five hundred years is not, in my judgment, out of place. This is necessary that we may more clearly understand the origin and foundation for a great many erroneous and dangerous ideas, to some of which we are still holding.

For convenience and clearness, the history of tuberculosis has been divided into four periods. First, the period of symptoms; second, the period of anatomy; third, the period of cause, and fourth, the period of prevention. These periods somewhat overlap, but each represents a distinct contribution.

THE PERIOD OF SYMPTOMS: In this period the diagnosis, prognosis and treatment were based exclusively on symptoms; nothing was known of the anatomy, pathology or cause.

Democritus, in the sixth century before Christ, in his last book, "On Those Who Are Attacked With a Cough After an Illness," was evidently dealing with tuberculosis. Hippocrates, in the fifth century before Christ, gave the following symptoms of tuberculosis: fever, hemorrhage, pleurisy, bulbous fingers, form of chest, violent cough, profuse expectoration, hectic, and wasted form. He taught that no case ever recovered.

With these symptoms present, his prognosis is correct today.

Galen, in the second century after Christ, gave the same symptoms and prognosis, and recommended milk, diet and dry climate. Aretaeus gave a perfectly clear picture of the closing scene in tuberculosis. Celsus recommended extended sea voyages, change of climate and milk diet. Fracastorius described the disease, recognized its contagious character, and considered continuous residence with a consumptive one of the most common causes. He insisted the contagious elements of the disease would remain in houses and on clothing for more than a year. Richard Morton in 1689 said: "Yea, when I consider with myself how often in one year there is cause enough ministered for producing these swellings, even to those that are wont to observe the strictest rules of living, I cannot sufficiently admire, that anyone, at least after he comes to the flower of his youth, can die without a touch of consumption." He was the first to describe the acute inflammatory, in what was then regarded as the beginning, and the hectic toward the end. We know now that what he described as the acute beginning was in fact the beginning of the end. He taught that it could be cured, but would recur. We see those recurrences today. They get fat, think they are well, go back into their former lives and "recur." Sydenham added nothing, but insisted on the value of fresh air and recommended horseback riding as a cure. He said: "I am sure that if any physician had a remedy for the curing of a phthisis of equal force of this of riding, he might easily get what wealth he pleased." Laennec (1819) gave the first clear description of the healing of tuberculosis.

THE PERIOD OF ANATOMY: Franciscus Sylvius (1614-1672) gave the first accurate description of tuberculosis in the lungs, and

*Read before the public meeting of the Section on State Medicine and Public Hygiene of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

thought they were enlarged glands. Magnet (1700) gave the first description of miliary tuberculosis. In an autopsy he found granules in the liver, lungs, spleen, kidneys, mesenteric glands and intestines. Morgagni raised the question whether these tubercules were really glands. Thomas Reid (1785) taught that these tubercules were not enlarged glands. Bayle (1810) was the first to teach that hemorrhage was the result and not the cause of tuberculosis.

THE PERIOD OF CAUSE: Cruveilhier (1826) attempted inoculation experiments; but he taught the possible inoculations were due to a variety of substances and were not specific. Klencke (1843) taught that tuberculosis was inoculable, and made a number of experiments. Villenin (1865), a French surgeon, demonstrated that tuberculosis was infectious. This demonstration was received with a great deal of skepticism. Cohnheim (1877) successfully inoculated rabbits with tuberculous material. The final proof that tuberculosis was infectious was established by Robert Koch in 1882, when he discovered and isolated the tubercle bacillus. He gave to the world one of the greatest discoveries known to medical science.

THE PERIOD OF PREVENTION: Logically, the next step was prevention; the enemy was discovered, his methods exposed. To check, control and prevent the disease, its cause must be attacked. The French were the first to fight tuberculosis by preventive measures. The whole civilized world has joined in this work of control and prevention; international congresses have been formed; national associations organized; state associations have come into existence; outdoor tubercular clinics are being held, and hundreds of government, state and private sanatoria have been established. In the campaign against tuberculosis in 1913 the State of New York spent \$4,888,834.00; the State of Pennsylvania spent \$2,087,294.00; the State of Illinois spent \$1,875,099.00; the State of Massachusetts spent \$1,438,679.00, and the State of California spent \$822,615.00. And the beginning has just begun.

The question has been asked: "Why should the laity be taught tuberculosis any more than they should be taught any other disease?" The nature and character of the onset in tuberculosis and the great danger of spreading the disease answer this question. In pneumonia, the attack is sharp, sudden, decisive. The patient knows he is sick,

goes to bed, and sends for his physician. In malaria, diphtheria and typhoid fever, it does not require the advice of a physician to convince the patient that he is sick. His feelings and the expression of the disease settle that point. The doctor, therefore, is on the ground, cares for and protects the patient, and prevents the spread of the disease.

In tuberculosis the passing from the normal to abnormal, from health to disease, is so insidious, so gradual and assumes disguises simulating so many ordinary fleeting and practically harmless conditions, encouraging the patient to go on and apply his own simple remedies, till his chances for recovery are gone, and he has possibly infected his family, his associates, and so on *ad finitum*.

The American people are notorious self-prescribers and medicine-takers. The fact that patent medicine concerns have flourished like a "Green Bay Tree" is proof positive of this assertion. The average individuals, unless they are too sick, do their own prescribing. And who can really condemn them? The medical profession is too modest or too deep in ethics to educate them, and leave it to the patent medicine firms, owners of fake remedies, and the secular press to miseducate them for a consideration. If they are taught to recognize the early symptoms of tuberculosis and their importance, and the lack of virtue in fake remedies, it will go a long way in the fight against this disease and save thousands of human lives annually.

Tuberculosis is a specific germ disease, due to the presence and growth in the human body of a colony of tubercle bacilli. It is both contagious and infectious. It may attack any part of the body, but is most common in the lungs. By the laity it is called consumption. This name was given at an early day, because of the wasting of the body. The victims are pale, emaciated, consumed. The germ is rod-shaped and so small that it can only be seen with a high-power microscope. Thrust an ordinary stick-pin through a piece of paper and through this hole a thousand germs can pass without touching each other or the paper. In a house they will live for years, protected by being behind rents in wallpaper, in cracks or crevices, and still be capable of producing disease. When dislodged by dusting or sweeping, they float about the premises on particles of dust too small to be seen, and if swallowed or inhaled, produce tuberculosis.

METHODS OF INFECTION: It is generally admitted that tuberculosis is most commonly contracted by inhalation. The germs are breathed into the lungs, and in this way we get an implantation and produce the disease. It may also be produced by swallowing the germs. The germs find their way to the mouth by contaminated hands, drinking vessels, towels, food, milk, butter, bed linen, wearing apparel, etc. After passing through the stomach they are taken up by the lymphatics and are deposited in the lungs or other parts of the body. The habit of careless and promiscuous spitting cannot be too strongly condemned. With the tuberculous father or mother, spitting at the fireplace or cuspidor, and spraying the whole room with myriads of germs, is it any wonder that we should have thought tuberculosis inherited? The small child playing on the floor contaminates his hands, conveys the germs to his mouth, either inhales or swallows them, and a few years later "inherits" tuberculosis. So far as inheritance is concerned, it cannot be considered a factor. There are not over fifty cases of inherited tuberculosis on record in both human beings and animals. When it does occur it is speedily fatal. It can with the same degree of consistency be said: "I cannot understand why I should have malaria or smallpox; no member of my family ever suffered from these diseases." The principle is the same. We may inherit a physiological poverty, a lack of physical stamina and resistance, which will render us an easy prey for any disease contagious or infectious, but we do not inherit tuberculosis. Sneezing or coughing without covering the mouth sprays the whole surroundings and each fine droplet, too small to be seen, may contain enough germs to infect dozens of people. The same is partly true in laughing and singing. Laundry girls are frequent victims of tuberculosis, contracted by handling the apparel of tubercular people. Spitting on the steps, sidewalks or grounds is an alarming source of danger. The women sweep their skirts over this sputum, it is carried into the houses and smeared over the floors or carpets. Later, after it has dried, it is set afloat by dusting or sweeping, and may be swallowed or inhaled. If the sun's rays did not, in their beneficence, destroy in two hours the tubercle bacilli, it would seem impossible for any of us to escape infection.

Children are more susceptible to tuberculosis than adults, but in childhood the disease

is largely one of the lymphatic system. They more often swallow than inhale the infection. Of this subject, Dr. John B. Hawes says: "Tuberculosis in childhood presents certain features which are radically different from those found in the same disease in adults. Post-mortem findings have shown beyond a doubt that by the time the fifteenth year is reached, at least fifty per cent of children, and probably a considerably larger per cent, are already infected with the tubercle bacillus." Bearing this fact in mind, then, it can readily be seen how important it is to recognize the signs and symptoms at the earliest possible moment. It is important to remember in the case of many children that a mild tuberculous infection may cause no symptoms whatever. There is a vast difference between "tuberculous infection" and "tuberculous disease." Pritchard says: "Tuberculosis is the commonest of all diseases to which childhood is liable. The congenital form of the disease is practically unknown, although the phthisical diathesis is strongly inherited and predisposes to subsequent development of tuberculous processes. Although tuberculosis is a terribly fatal disease during the first few months of life, the mortality rate among those infected rapidly falls to about two per cent at the end of the fourth year. Thus, as far as tuberculosis is concerned, children may be said to be highly susceptible, but with the exception of the first two years of life, little liable to fatal results."

One of the common sources of infection among babies and young children is the milk from tuberculous cows. The symptoms in childhood are about as follows:

1. Loss of weight, or better, failure to gain weight.
2. Malnutrition, despite proper nourishment.
3. Fever—more or less continuous.
4. Anemia.
5. Loss of appetite, undue fatigue, irritability, loss of spirit and mental tone.

THE EARLY SYMPTOMS IN ADULT LIFE: There are two reasons why tuberculosis is not more often detected in its incipiency. One is the fault of the layman; the other is the fault of the doctor. As a rule, the patient does not, in early tuberculosis, look bad or often feel sick, and he and his "fool friends" refuse to believe that he is sick. In a very large majority of cases there is nothing to point to trouble in the lungs. As already

stated, the early symptoms of tuberculosis are so polymorphic and resemble so many ordinary ailments and simple diseases, that the patient is easily thrown off his guard. In fact, many of the symptoms of early tuberculosis may appear in persons free from any disease; but in cases of this kind they are fleeting, and show no tendency to persist. The early expressions of tuberculosis are: Fatigue, without sufficient exercise to produce it; loss of interest and ambition; capricious, or loss of appetite; slight loss of weight; "tired," "run-down feeling;" dull pains between or below the shoulder blades; periodical attacks of indigestion; slight cough, or tendency to clear up the throat; persistent morning subnormal temperature, below 98; rapid pulse through the day of 80 or above; afternoon temperature elevation of 99 or above. These symptoms do not all occur at the same time. The patient thinks he is suffering from chronic indigestion, malaria, biliousness, la grippe, rheumatism, bronchitis, a cold, or is run down. He buys either a bottle of "Prickly Ash Bitters," "Peruna," "Three Sixes," "Cure-a-Cold-in-Twenty-four Hours," Rexall or Dyke's Remedies, and takes a dose of oil or a course of calomel. He rests a few days and feels reinstated physically, and in from three to six weeks the whole story must be repeated. In this way he goes on, and all the while the disease is progressing. Finally, some keen, observing old woman tells him he has consumption, or he has a breakdown, and he goes to a doctor, who finds in his sputum myriads of germs and his chances for recovery gone. All this time he has never suspected lung trouble, and "Who would have thought it?" He had been able to work most of the time, he had a very good complexion, he had not lost more than from five to fifteen pounds, none of his people ever had consumption, he had never had a hemorrhage or night sweat, and he did not cough all night. "Strange that he should have had tuberculosis and we did not suspect it!"

The laity must be taught that at the beginning, and possibly for a long period of time, a tubercular patient does not look sick. The picture must be changed. The laity must be taught to recognize the first suspicious symptoms. They must know the danger in allowing these symptoms to persist and the awful folly of trying to relieve them with fake remedies. If recovery from tuberculosis is to be had, the layman must be taught how to secure it. If the disease is to be checked, controlled and prevented, we must take the

public into our confidence. It cannot be done without their co-operation, and they must be taught how to co-operate.

The medical profession is quite as much to blame as the laity for not detecting tuberculosis at a time when it is most curable. Like the laity, we have not prepared ourselves to recognize the early expressions of the disease. The fight against tuberculosis has revealed this appalling condition in every state. The doctor contents himself with an imperfect history, looks at the patient's tongue, feels his pulse, takes the patient's own diagnosis that he has a cold, indigestion, rheumatism, bronchitis, malaria or la grippe, and gives him a prescription for it. Or, if he examines the lungs, he does it hurriedly and is listening for heavy rales, gurgling sounds or signs of cavitation. These, of course, are not found at the beginning, and he sends the patient away with the advice that his lungs are clear. I graduated less than ten years ago, and the symptoms of tuberculosis put before me as a student were those of the advanced stage! What is the result? Our patient goes on till he has reached the moderately advanced or advanced stage, when any intelligent layman can recognize the earmarks quite as readily as a doctor. Recently a patient was sent to our sanatorium by a prominent doctor in one of the largest cities of the state. The doctor's report of his examination showed slight dullness in apex of left lung, right lung clear, prognosis good. He reached us in a state of complete exhaustion with a pulse of 150. Examination revealed right lung cavernous from apex to base, left lung badly infected down to sixth rib, and urine forty per cent sugar. In forty-eight hours the patient was a corpse. Not over ten per cent of patients sent to sanatoria as incipient cases really belong in the first stage. I realize this is a severe indictment, but investigations have proved it. Probably you are now wondering why I did not select for the subject of my paper "What the Doctor, as Well as the Layman, Should Know About Tuberculosis." I do not offer these criticisms in a "holier than thou" spirit. Since beginning the practice of medicine I have advised patients who were running an afternoon temperature of 102, to get out in the morning and take long drives or horseback rides. Sydenham's injunction to "ride and rough it" has slain its thousands.

A clear history, the pulse and a fever thermometer, intelligently applied, will make a diagnosis in the incipient stage. A persistent

subnormal temperature in the mornings, a rapid pulse and slight afternoon fever, is pathognomonic of tuberculosis. Add to this a persistence of the physical signs and constitutional symptoms above referred to, and you have a perfect picture of early tuberculosis. As a rule, when the germs are found in the sputum, the case is no longer an incipient one. If the doctor wishes to confirm his diagnosis, there are reliable tests which may be employed. It should be borne in mind that "absence of proof is not always proof of absence." The examination of the chest is a feature in which the doctor alone is concerned.

PREVENTION: Every case of tuberculosis in adults is directly or indirectly contracted from some ignorant or careless tubercular subject, and could and should have been prevented. Statistics show that in the United States *two hundred thousand* people die annually from tuberculosis, and that twelve millions of the people now living in the United States will die from the same cause unless prevented. If every tubercle bacillus thrown off by tubercular subjects should be destroyed, there could never be another case of consumption. The first thing should be an anti-spitting crusade. If this cannot be controlled by education, and I doubt it, there should be a law forcing every individual to use sputum cups. If you wish to know why I think education will fail to accomplish this purpose, put a sputum cup in your pocket, and when you are in a passenger coach, hotel lobby, or any other public place, force yourself to cough a little, pull out your sputum cup and expectorate in it; then watch your neighbors vacate! **PHTHISIOPHOBIA!** If you are careful, they are afraid of you. If you spit on the floor and rub your foot on it, they smile. The mouth should be covered when coughing, sneezing or laughing. The house fly should be abolished. There should be separate drinking vessels, towels and sleeping apartments. Everything a tubercular subject uses should be sterilized before being used by another. Sweeping should be abolished and mopping with a damp mop used instead. Dairy herds and milk cows should be tested for tuberculosis at regular intervals. The kissing of babies should not be indulged in. If I did not realize that it would be a waste of time, I would suggest the abandonment altogether of labial salutations. At my age I can very well afford to make this recommendation! A most powerful preventive meas-

ure is simple, sensible, correct living. Overwork, loss of sleep, the use of alcohol, or any other forms of dissipation, predispose to tuberculosis. The development of or recovery from tuberculosis is largely a question of balance. The body must be kept stronger than the disease. The resistance from within must be greater than the invasion from without.

TREATMENT: It is not necessary for the layman to know a great deal about the treatment of tuberculosis. Of more importance is the removal of erroneous ideas already existing. If infected, he should place himself in the hands of a physician who understands the disease and its treatment. He should know, however, that people afflicted with tuberculosis, if discovered in time, can and should get well. I do not mean by this that every patient will recover. There are not a hundred per cent recoveries in any disease. But incipient tuberculosis should be regarded as being more curable than any other chronic disease, if properly managed. An early diagnosis is the powerful factor. Should you lose a finger, the surgeon cannot cause you to grow another; neither can you grow a new lung after it has been destroyed by disease. To get well, one must start before the lung tissue breaks down. Dr. Marcus Patterson states that "the golden rule in tuberculosis is that there is no golden rule." But I believe that **REST**—complete mental and physical rest—must apply in every case of febrile or active tuberculosis. Immobilization is a better word than rest. In the absence of this complete rest there is very little to hope for. When a patient has an active tubercular process in his lungs he should be regarded as being sick and should be treated as a sick man, it matters not how well he may feel at times. No layman would allow a case of typhoid fever or pneumonia to be up, walk, drive or ride horseback. The tubercular patient is quite as seriously sick, or more so. Then why should we make tuberculosis the exception? Give the patient, then, absolute rest in bed, no reading, talking, or company. All his meals should be taken in bed. It should be understood—contrary to the layman's popular idea—that the bed is the place to gain strength and appetite, rather than the place to lose them.

DIET: A good digestion and plenty of good, nutritious food is the tubercular patient's best friend. In this matter he should be under the advice of a physician.

FRESH AIR: The patient should sleep in the open, and live in the sunshine. Tight houses and closed windows are a constant menace to good health, and powerful enemies to tubercular people. To sleep in the open air does not cause colds or sickness, but prevents them. It is important to remember that night air is no more unhealthy than day air.

RIGHT LIVING: Dissipations, indiscretions and irregularities in the manner of living are dangerous.

Every patient should be under the advice of a physician who thoroughly understands his disease. After the disease is no longer active, graduated exercise, directed by the physician, should be followed. The most satisfactory place to secure treatment and education for tubercular patients is in a well-regulated tubercular sanatorium. It combines the essential discipline, education and treatment that cannot be secured in private homes. These are not cheerless institutions in which the dying may be assembled. They are efficient and happy combinations of everything that experience, money and brains can produce. There is an unfortunate popular opinion that a tubercular sanatorium carries with it the stigma of an asylum. Education should remove this perverted idea. No patient suffering from typhoid fever or pneumonia would hesitate to enter an infirmary; then why should we not take the same view of an institution for the treatment of tuberculosis?

TO SUMMARIZE:

1. Tuberculosis is both contagious and infectious.
2. It is caused by a specific germ and is not inherited.
3. It can and should be prevented.
4. It is the most curable of all chronic diseases.
5. Rest is the most powerful agent in its treatment; food and fresh air are next in importance.
6. It is common in childhood, but is confined to the glandular system and is rarely found in the lung tissue.
7. The laity must be educated in tuberculosis if we are to detect it early, control and prevent it.
8. There are no medical agents or serums that will cure the disease.

9. The best means for securing the most satisfactory treatment are to be had in a well-regulated institution for the treatment of tuberculosis.

PELLAGRA.*

By Henry Thibault, M. D.,
Scott.

It would be unpardonable in me to take up a great deal of the time of this section in reviewing the history of pellagra and the various theories that have been advanced in regard to its cause.

That the incidence of the disease is rapidly increasing cannot be doubted; neither can we doubt our absolute ignorance of its cause and mode of transmission from one person to another. Experience has almost, if not completely, established two facts in connection with this point: First, that pellagra is probably not acquired by personal contact with the patient; and second, that while some experiments seem to point to the contrary, the eating of corn, immature, that has passed through a heating or fermenting process, is probably not the cause of the disease.

Indications are that pellagra is an insect-borne disease, probably due to a filterable virus, but the facts in regard to this are yet to be established.

The greatest incidence of the disease in spring and autumn closely correspond to the seasonable activities of various suctorial insects, notably the stable fly, the buffalo gnats, and several species of mosquitoes; and the geographical distribution also significantly coincides with that of these insects. Still, these are merely suggestive facts. But they are facts so suggestive that until the etiology and mode of transmission are absolutely worked out, it is the duty of the physician to see that these patients, the members of their families and their neighbors are protected as far as possible from all biting insects. All pellagrins should occupy screened quarters, and if there are other people in the same house they should sleep under mosquito bars, and by care in this way we may be able to limit empirically the spread of the disease until we learn enough about it to attack it on a purely rational basis.

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The treatment, generous use of sodium cacodylate and hydro-therapy, has under favorable conditions done a great deal to relieve, if not absolutely cure, many of these unfortunate people. But the essentially chronic course of the disease and the inability in private practice to get many of the victims to continue the treatment regularly and for a sufficient length of time, render institutional treatment far more satisfactory. I believe that a great burden of the state and a great affliction to the pellagrins and their families could be materially lessened if they were treated in our State Hospital for Nervous Diseases *before* rather than *after* they have developed symptoms of exhaustive insanity.

So much is yet to be learned about pellagra that I feel that I have taken a great liberty with the unknown in writing this paper. What is the virus? How is it transmitted? Are the apparent cures cures, or are the patients merely made into symptomless carriers of pellagra? And last, but by no means least, how can we check the rapid increase in the incidence of pellagra?

DISCUSSION.

Dr. C. C. Bass (New Orleans, La.): There is some evidence that pellagra may be an infectious disease, and transmitted perhaps by an insect of some sort. About the only practical phase of the subject I could call attention to, I believe, would be the manner in which some of the symptoms are produced. The skin lesions of pellagra are perhaps the most suggestive symptoms or the symptoms that attract most attention, and we are inclined to presume that the patient is improving or not, according to the progress of the skin symptoms of pellagra. We probably are more or less in error in that regard. The skin lesions of pellagra can be produced by a variety of physical causes, and more or less at will in susceptible individuals. All recall the characteristic lesions of the hand usually extending to the wrist and frequently extending around the wrist. Now, you might at first be inclined to think that that is some specific lesion of the disease itself, but if you will roll the patient's sleeve up and expose the arm to the bright sunlight, lesions develop further up just as well. If the patient happens to be bare-headed, and the neck is unprotected, the lesions will appear around the neck just about the same as they do on his hands. A great many patients can point out the very hour or day at which they got sunburned. Of course, many of them think that it is sunburn. That is their diagnosis. Other influences, though, will produce a skin lesion of pellagra besides sunshine. Sunshine or sunlight is certainly the most common cause of the skin lesions. There are other influences very different. For instance, chemical influences. Washwomen, washing with "Gold Dust," a very strong washing powder, have burned their hands washing with it. I have taken a solution of "Gold Dust" and produced skin lesions over the patient's body. In a pellagra patient, who was susceptible at the time to the production of lesions, you can produce lesions anywhere on his body with a proper solution of "Gold Dust." Many of you,

no doubt, have seen a lesion made worse apparently by the local application of some antiseptic ointment. Wherever the ointment is applied beyond the lesion, in a day or two lesions develop there, and I have seen it extend all the way to the elbow by such application. So, chemical influences may produce lesions also. In addition to that, I am sure most of you have seen the lesions that occur on the elbow, and perhaps may not have been impressed as to just how those lesions are produced, but those lesions only occur on patients who become bedridden. As long as the patient is up and about, no lesions develop on the elbow, but as soon as he gets bedridden and gets up on the elbows to rest, take food, or for various purposes, it is sufficient to produce lesions, and the lesions are just as distinct, the skin comes off and it runs the same course as lesions on the back of the hand produced by sunlight. Then, another influence that will do it is the x-ray. A pellagra patient, if he happened to be exposed to the x-ray at a favorable time (or unfavorable time), develops lesions running the course of pellagra lesions, it matters not what part of the body is exposed. You may say that does not explain the lesions we sometimes see develop on the scrotum, penis, prepuce, etc. Severe cases frequently have lesions there. That can be explained if you recall the extra amount of pressure and trauma on sitting and various positions that one assumes—considerable pressure or damage to the tissues which would not have caused lesions in a normal individual—are now capable of causing lesions in an abnormal individual or in a pellagra individual. Another thing that seems to be true is, if you can produce lesions on the outside epithelial surface, you can also produce lesions on the inside epithelial surface. For instance, the digestive juices of the mouth and intestinal canal, the digestive system, are capable of digesting or damaging the mucous membrane, when it formerly would not have been digested in a perfectly normal individual. I have been impressed lately in studying the disease with a feature that I had never learned before, though I have certainly seen many hundreds of cases and studied it, I thought, pretty carefully, and that is that a great many patients seen this year—I presume it was so before if we had inquired into it—gave a history and complained of numbness or tingling or some abnormal sensation in the extremities, especially the feet and legs. Such evidences of nerve sensations, coupled with insanity and various other evidences of central nerve disease as exist, tend very strongly to indicate that the disease may be primary and actually a disease of the central nervous system, the brain and cord perhaps, and that accidentally and incidentally these peripheral lesions develop.

I may say on the question of treatment that I have seen a great many specifics discovered, and I have observed a good many of them, treated a good many cases with them, and I am certain that, as far as any information that I possess is concerned, I haven't the slightest evidence of any drug having any specific influence on pellagra. Pellagra gets well in a considerable percentage of cases, or at least gets to where the patient feels well and appears well, and, as far as we can demonstrate, is well. Some of them that I know of have remained well as long as six years. Whether they are finally well is yet to be determined, but it has not been accomplished by medicine. There are most ardent supporters of one specific or another. For instance, one supports salvarsan and knows that he cures every case of pellagra, or a large per cent, at least. Another one supports quinin, and he knows that he cures a large per cent of the cases with quinin. And another urotropin, and another one something else, and another one opium. Finally there is not one particle of difference in the results that they have obtained in a large

series of cases from those who don't use any remedy. If any one of them was a specific, and if their claim was correct, then all the other claims must be incorrect. It is not at all probable that two drugs as extremely different as quinin on the one hand and salvarsan on the other would both of them be perfect specifics for this new disease. If we will recall the history of medicine and the discovery of specifics in medicine, practically we only possess about half a dozen specifics in medicine. Some of those were discovered before the cause of the disease was discovered, but extremely few. Of the diseases that we now know the causes of and the nature of and know a great deal of, extremely few of them do we possess any specific cure for. It would be passing strange for someone to come along and discover a cure for this strange disease, pellagra, that we don't know anything about, don't know the cause of, don't understand the process of. I must say I haven't a great deal of confidence in any cure that we possess, and I haven't a great deal of hope that we shall soon have a cure for pellagra. That it is a disease of the greatest importance, I certainly admit. (Applause.)

Dr. L. Kirby (Harrison): I want to ask a question or two. When one uses "Gold Dust" or any other irritant on the left or right arm, does the disease appear at the same time on the other arm without reaching it?

Dr. Bass: No. Whenever a patient develops lesions on the elbow, they very often have them on one elbow because they happen to get up and rest on the right or left side. Sunlight influence is bilateral, and naturally the lesions on the hands are usually bilateral.

Dr. Aronson (Little Rock): I saw two cases of pellagra at Little Rock. One rather interesting case supports Dr. Bass' statement. The influence in this case was physical. An insane negro, I judge about twenty-eight years old, had a history of having placed his body against hot water pipes in the asylum when it was cold. I did not know it was pellagra until I saw the second case. The lesions later made their appearance on the back, over the elbow and over the knuckles. In those two cases there was a marked amount of fat, the subcutaneous tissues well preserved, and had the same color as pernicious anemia. In addition, marked fatty degeneration of the liver.

Dr. Thibault (Essayist): I do not see that I can add anything.

Dr. Bass' observation in regard to the treatment is a point very well taken. We have never had for a disease that we really know how to treat, as many different remedies as we have for pellagra. You know it is a fact that the less we know about the etiology, pathology and the ultimate course of a disease, the more specific remedies we have for the treatment of that disease. The point Dr. Aronson brought out in regard to the preservation of the subcutaneous fat in some of these cases is very well taken, and in such instances we very often find in desperate cases of pellagra the loss of weight is entirely out of proportion to the loss of subcutaneous fat. While the patient may become emaciated, we haven't the rapid disappearance of the subcutaneous fat that we have in a protracted case of tuberculosis where they become thin and practically no subcutaneous fat is left. In fact, the condition that he mentions is similar to the condition in pernicious anemia where we have comparatively a well-preserved subcutaneous fat.

MEDICAL EXAMINATION FOR LIFE INSURANCE.*

By Don Smith, M. D.,
Hope.

Life insurance is a well-recognized and near indispensable branch of the business world.

The young man who starts out now—if he is a good, thoughtful, young business man—one of his first sensible acts covers his life with a sum adequate to take care of those dependent upon him, and those to whom he may be indebted.

Frequently when a man wishes to get a loan, he is asked the question, "Have you any life insurance, and how much and to whom is it payable in case of death?"

This question is almost sure to be asked if the applicant for the loan has no collateral to offer as security.

But what has that to do with examinations for life insurance?

Well, I am just trying to lead you up to the point—by showing the absolute need of life insurance.

Nearly every man is, or will sooner or later, become interested in insurance. And (here is a point to put your finger on) none are more deeply interested than those who are failing in health and realize they may not have long to live. These fellows are seeking insurance by the hundreds, and many of them are getting it on account of carelessness on the part of medical examiners.

Now, I want to lay down this axiom (for it is an axiom) right in the beginning of this paper, namely: If you accept the position of medical examiner for any company, you should always give the company the benefit of any doubt as to the applicant's eligibility for insurance. The company, in employing you, only asks for a square deal (I never knew one to ask more), and you should see that both company and applicant get it.

In making an examination you should remember that the company is paying you for an honest, conscientious report. The person you are examining is paying you nothing, but is equally entitled to your careful consideration, because a carelessly answered question

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might jeopardize his chances for insurance when he would be entitled to all he might want.

I know a splendid man who applied for insurance in an old line company about fifteen years ago, and was rejected because of carelessness on the part of the examiner. The man is a first-class risk yet, his habits being ideal and his physique splendid; but he can't get it, because back there he was rejected.

I simply mention this case to illustrate the importance of being careful and painstaking in every instance.

There are no hard and fast rules for making examinations. The different companies prepare their own blanks, and if the questions are answered intelligently and carefully, a picture of the applicant is before the medical director; and he can pass upon the fitness of the applicant for insurance. But no blank ever prepared can give the medical director the same chance as the local examiner has to determine the character of the risk. The applicant in person sits before you. When he entered your office you shook hands with him, and noted whether there was a cold, clammy feel, a hot, dry feel, or a normal feel to his hands. You also noted his appearance as to neatness, or a tendency toward slouchiness. Probably you got an odor from his breath which spoke a language plainer than words, and that odor put you on your guard. The medical director of your company in Philadelphia, New York or elsewhere is too far away to get that odor (unless, indeed, the breezes were working just right), and you could very easily "put one over on him" here. Then you began to reason like this: "This man is a good business man here in my home town. I am his physician. I can't afford to mention this drink habit. No one knows about it particularly. I'll just not mention this." Or you might reason this way: "This is a prominent business man, and I have never done anything for him, but I will be exceptionally pleasant to him, and maybe I will land him on my list."

Now I say to you, when the tempter comes in this fashion (and he comes to all of us alike), just remember the company is paying you for a square deal. The applicant is paying you nothing, and if the applicant knew you were juggling facts he would lose respect for you.

Then, again, you might say: "Mr. B, I know you well. You have never been sick any; I'll just pass you. I examined your urine several times last year and found it

normal. Your lungs and heart and abdominal viscera are alright. As a matter of form, however, I will examine your chest." Then you hurriedly run over his chest through his clothing, and slap him on the back and say, "You are as sound as a dollar."

Now, here is the point: You should have stripped that man, because underneath all that heavy underwear may have been a dozen indications of disease which your medical director is relying upon you to find and report. Besides, your stethoscope could not reveal only the grossest lesions of lungs or heart through all that clothing. You should go over the chest slowly and intelligently. Keep your eyes and ears open and your brain working. Some people look at a thing and never see it, or get a sound which never travels to the brain for interpretation. Familiarize yourself with normal breath and heart sounds, or you can never recognize the abnormal. Look at the chest with your eyes open—note its shape, etc.

Next, you pass to gastro-intestinal tract, and here you had better "take off your hat;" there may be serious disease here, and yet such disease may present no definite symptoms. For an example: Three years ago I examined a man for insurance who was fifty-two years of age. His family history was magnificent; father and mother still living at an advanced age; personal history negative as to disease, except that in the summer before (this was in October) he had an attack of diarrhea which his doctor had been able to control by dieting and proper medication. Examination of abdomen revealed nothing. I was not exactly satisfied, and asked his physician about his attack of diarrhea. He seemed to think it amounted to nothing, and I recommended him for insurance. In January following, he went to bed with an attack of diarrhea, of which he died the following April. We could never diagnose the cause of the diarrhea. There was never the least mass in abdomen. The abdomen was perfectly flat all through his illness, which made it easy to examine. Of course, we thought of several of the most likely diseases, but we could not satisfy ourselves. The point is, the man had the trouble when I examined him, and he evidently knew it, but I failed to detect the lesion; hence, I say "take off your hat" to abdomen. There may be serious disease of stomach or intestines which as yet have produced no symptoms except a slight discomfort.

The genito-urinary tract is your next goal, and here you are apt to content yourself with a specimen of urine. Don't let the applicant get away without knowing whether or not he is strictured, or the victim of some other form of trouble which might seriously affect a risk. If a man's practice is any guide, venereal disease is rather common in men, and as a result of man's unchaste habits, women, too, are often its victims. Now, as to urine: When you are sure it was voided by applicant, don't throw it away because it *looks* alright; just try it out anyway. It is a good idea in your general practice to make a urinalysis occasionally. Once in a while you will be surprised.

I know a man who recently got insurance in two fraternal orders whose blood pressure reached the two-hundred mark, and his urine is loaded with albumen. Of course, his urine was not examined at all, and the doctor who made it cannot get an appointment from an old line company.

This part of examinations for insurance has been so sadly abused that one company at least is demanding that specimens of urine be sent to home office for examination. This is a reflection on the general practice, but the company evidently has some good reason for doing this, and the only reason is inefficiency or carelessness on the part of local examiners. I cannot believe it is inefficiency except in a few instances, but I do believe it is due to carelessness. Most men, after they have been practicing for several years, drift into a careless way, and it takes a jolt once in a while to arouse them.

If competition is sharp, men are better doctors than where it is not. I have examined many a specimen of urine in private practice (and found something wrong with a few of them) that I would not have examined had I not been afraid the other fellow would. None of us like to be caught napping.

Yet, I grant you the fear of being caught in an error should not be the incentive that makes men careful. Love of the profession, coupled with the self-satisfaction which comes of doing the right thing—these should be the incentives that prompt us in our work.

Gentlemen, it is not my intention to try to tell you how to examine an applicant for insurance. I have said nothing about the nervous system, which must be looked into in every examination. I have said nothing about the skin and the mute language it speaks when brought into court as a witness

in life insurance examinations. I have omitted nearly everything that would help you in making an examination. You know enough about making them. I am just urging you to put into execution what you do know. Don't be careless; pay attention to detail. Equip your offices for making examinations, and make them nowhere else except in your office, unless it is a case where it is impossible, or at least very inconvenient. After you have finished, if you are not thoroughly satisfied as to applicant's fitness, find some of his intimate friends and ask a few judicious questions, and often you will learn what an examination would not reveal, namely, that your man is morally unfit, or has some trouble which he is concealing from you.

I believe the examiner most appreciated by an insurance company is the common sense, practical doctor whose word can be relied upon implicitly. He may not be brilliant; he may not know so much about diagnosis (I mean laboratory diagnosis), but he is able to interpret symptoms and tell the truth. This is the man upon whom we can rely in all things.

A SHORT GENERAL CONSIDERATION OF CORNEAL ULCERS.*

By Dred R. Dorente, M. D.,

Oculist to St. Louis and San Francisco R. R.; Chief Oculist to the Fort Smith and Western, and St. Louis, El Reno and Western Ry. Co.,

Fort Smith.

The study of corneal ulcers, in order to be practical, should be made from the dual viewpoint of the general practitioner and the oculist. This is true because there is that class of cases that necessarily come under the observation of the former first. Of course, the one who limits his practice to that of the diseases and surgery of the eye is obviously the one to whom we should look for facts concerning that organ.

The apparent simplicity of some of the diseases of the eye may place one not experienced in an embarrassing position.

To correctly understand the various phases of corneal ulceration, the function and the anatomy of the cornea especially should be thoroughly understood.

Any inflammation of the cornea belongs to one, ultimately of two categories or classical subdivisions—the suppurative and non-sup-

*Read before the Tenth Councilor District Medical Society, held in Fort Smith, September 15, 1914.

purative type—and are various in their clinical forms.

The etiology may be conveniently divided into two groups—primary and secondary.

Primary ulcers are those that have their starting in the cornea. Secondary ulcers are those that are the result of disease of some other tissue than corneal. Primary ulcers are frequently the result of trauma; that is, they follow injuries to the eye such as cuts, blows, foreign bodies, burns, or anatomical abnormalities such as entropion trichiasis, trachoma, etc., resulting in infection by the micro-organisms that gain entrance into the tissue through the abrasion of the epithelium, it being known there are germs in the secretion of the conjunctival sac both in the pathological and the normal state. In some cases of absolute glaucoma with insensitive cornea, we sometimes see an ulcerative process as in also old corneal cicatricies.

Secondary ulcers are the result of disease process by reason of a direct continuity of diseased tissue as in gonorrheal conjunctivitis or diphtheria, or some constitutional dyscrasia causing a disease symptom in the cornea, such as a keratomalacia or a conjunctivitis eczematosa.

The pathology of ulcerations of the cornea generally is much the same, the process being modified by innumerable circumstances and ranging from a slight, almost imperceptible involvement of the epithelial layer to an extensive abscess.

An ulcer is the terminal stage of an inflammatory process in every instance, causing death of an area with healing by scar tissue.

The inflammation first manifests itself by a cloudiness over which is a gray infiltrate. Following the infiltration a disintegration occurs, resulting in an excavation.

In the symptomatology and diagnosis there are two particular phases to consider—the probable and the fact. We can only anticipate an involvement of the cornea by having a knowledge of those conditions, general and local, that are likely to result in a partial or total destruction of the cornea.

Keratomalacia and conjunctivitis eczematosa, both of which are diseases of childhood, are each one of a group of symptoms of a generally lowered vitality, a condition that is oftentimes caused by bad hygienic surroundings and under-nourishments.

Regarding the ulcer *per se*: There are three cardinal diagnostic symptoms—pain, photophobia and lachrymation—especially in

the progressive stage. When these symptoms are observed, a careful inspection of the cornea should be made—not always an easy procedure, especially with children. With the proper illumination, direct and oblique, the clouded, infiltrated or excavated area can usually be observed.

A differential diagnosis between a true ulcerative process and a deposition of some exudative substance is to be thought of at the time of examination.

As a rule, ulcers of the cornea are quite amenable to treatment. Therefore, a favorable prognosis may generally be given. It should be remembered that the ulcers heal with the formation of scar tissue, which is not transparent, hence the vision will be impaired according to the situation of the scar, its area and depth.

The treatment of all corneal ulcers is very much the same and according to the stage of the ulceration and the general condition of the patient.

The first consideration is rest. This condition is brought about by the instillation of some cycloplegic, usually atropin, frequently enough to keep the pupil dilated admaximum and the patient kept away from the light. If the pain is very severe, the administration of sedatives such as the bromides is good. To kill the bacteria and destroy the spores, the most potent remedy is tincture of iodine, applied directly to the area involved. As this procedure is painful, a weak solution of cocaine or other local anesthetic is first instilled.

Tincture of iodine is not only a germicide, but a marked stimulant, and does not destroy tissue. Two-ten per cent solution of silver nitrate may be used in the same way, but immediately after the application the conjunctival sac should be flushed with a salt solution, if more than a two per cent solution is used; carbolic acid 25 per cent in glycerine is used in the same way, as is alcohol.

Should the ulcer be markedly progressive it may be necessary to use the actual cautery to check its course. Care must be taken in the use of the actual cautery. Only the undermined foul edge should be touched, except in ulcer-rodens, when the entire edge should be well cauterized. A great deal of sound corneal tissue can easily be destroyed with the actual cautery resulting in the formation of just that much more scar tissue.

Frequent instillations of boric acid or sodium-borate solutions is necessary to keep

the eye clean. One or two drops of a half to one per cent solution of argenti-nitras solution every two to five hours may be used, producing good results. The silver salt is particularly useful where there is much conjunctival secretion as in gonorrheal ophthalmia with corneal ulcers.

Where the secretion is scant or absent, a drop of a 20 per cent solution of argyrol in the eye every hour or two is good. Good results are sometimes had by using 1-1000 solution of methylen-blue in the eye frequently, or zinc sulphate in one per cent solution. Dionin in 5-10 per cent solution dropped in the eye every four to six hours is a very useful remedy, allaying pain, hastening absorption and lowering tension, particularly when the iris and ciliary body are involved.

A half to one hour's application of moist heat every three hours or oftener, to the eyelids and surrounding parts, is a very useful procedure. Sprinkling iodoform and calomel over the ulcerated surface is a routine practice of some surgeons.

Should a bandage be used? This is a question that demands considerable thought, for in some cases it is a necessity, while in others it is a hindrance. If there is much secretion, the bandage should not be used, unless there are signs of perforation or after an operative procedure, as in the Sacmisch incision in the treatment of serpiginous ulcer or a paracentesis to relieve tension, when the bandage should be applied with constant pressure.

In the presence of secretion the bandage serves to prevent drainage of the conjunctival sac, thereby making reinfection probable.

A loosely applied bandage serves no purpose for good at all. When it is necessary for the patient to be where there is a bright light it is well to apply a snug bandage for the time being to assist in producing the condition of rest. Occasionally the application of a pressure bandage will tend to relieve pain.

Experience will guide the surgeon in the treatment of the various corneal ulcerations and create an individual line of therapy and operative procedure which will stand him in good stead when such cases come under his care.

TREATMENT OF WHITLOW AND FELON.

Beverley Robinson, New York Medical Journal, June 27, 1914, recommends the use,

morning and evening, of equal parts of glycerin and a saturated solution of magnesium sulphate. Aseptic gauze should be saturated with this mixture, then covered with thin rubber tissue and a little absorbent cotton, and held in place on the finger with a narrow gauze bandage. During the day this application may be removed advantageously for a while, and the finger soaked in hot water and borax (half an ounce of borax to one pint of hot water) at least during fifteen to twenty minutes, two or three times in twenty-four hours. The borated solution is very useful in reducing local pain and redness, and probably limits the spread of the disease. Prior to its employment, the author used a half saturated solution of boric acid in water, with very poor results. When the felon is well on toward recovery, after several weeks of wet dressing and soaking, oxide of zinc ointment, applied at bedtime or during the day also, is notably beneficial in curing what still remains of pain, redness and swelling.—*The American Practitioner*.

THOUGHTS INSPIRED ALONG THE HIGHWAY OF THE MISSISSIPPI COUNTY MEDICAL SOCIETY.

By Thos. F. Hudson, M. D.,
Luxora.

I would feel that I was most ungrateful not to express my sincere thanks to you members of the Mississippi County Medical Society for the position I have held during the past year as your president. How well the position has been filled can best be judged by the work we have accomplished. I have been thoroughly convinced that no officer, regardless of how diligent he may be, how earnest he may be, or how capable he may be, can do the work he so much desires unless he has the co-operation and support of the members who compose the society that he represents. I do not wish you to understand that I pose as being as competent a man as our society possesses, or that I feel we have accomplished nothing. Far be it from that. We must acknowledge, however, that we have not done what has been within our power to do.

To those members who have given their hearty support to the work, I feel very grateful. I had hoped to have a greater number and I cannot see at this time where we failed to secure that number. Both the secretary and myself have acknowledged a willingness to be guided by the wishes of the society as

to the character of work we did; but work we insisted on. I feel that the officers we select for the coming year will carry out these same principles.

To be an officer impresses upon one more than all other influences can, the importance of being a conscientious, energetic worker. We have men who are thoroughly capable who do not feel interested in doing active work. We have thoroughly capable men who say they cannot do work. We have men who would become better doctors if they would work.

Some have excused themselves because of friction between the different members of the society. I will agree that this is exceedingly unpleasant and unprofitable; but I see no real reason why friction should exist. The destruction of our society by friction is not peculiar to the society. Think what friction means to a business of any kind, or even what it means to a church. The best treatment for friction that I know of is right living. No other method is profitable to yourself or to your profession, if you will but be honest in your judgment. Public opinion of the profession depends entirely on our conduct and our attitude toward each other. Confidence cannot be had in one if he continuously doubts the other. And here I wish to say that a man who is a constant doubter of one's honesty, reliability or integrity should be watched himself, "no one being a better judge of a thief than another one." We should encourage each other in our work. An interesting case presented, a scientific paper read, a scientific treatment of a medical case or a properly performed operation should be appreciated here as elsewhere, and certainly should not be criticised. We cannot hope to accomplish as much in our endeavors to heal the sick, to prevent the spread of infectious disease, or to do other of our numerous duties which we owe to the profession and the public at large, unless we have the support of each other. Then let us quit for one thing—the unprofessional and ungentlemanly conduct one toward another and let the golden rule prevail.

Another cause for inactivity is this reasoning: "I get more good from the same time spent in reading my text-books." To offset that, I wish to say that the society belongs to you as much as any other individual, and you are responsible for its success. My personal opinion of that man is that he appears to spend very little time in reading

his text-books. His argument is certainly bad, for one must acknowledge that a day spent among even just a few active men is invaluable. What would you think of a member of a firm that would say: "I can manage my business just as well at my home, and will not go to the office today?" The argument is just as reasonable. My opinion of a man of that kind is that he does not have the interests of the society, the profession or the welfare of his patients at heart. This is a living age and we must progress or retrograde, and the idle must retrograde.

For the man who is capable and cannot work, I desire to say that it is another case of mistaken identity. If you do not think you can write a paper or present a case, just try once. It will not only be pleasing to the society, but it will be good for you. I have never prepared a paper that I did not receive great benefit, not only from its preparation, but in the discussion brought out. To neglect your society from this cause is a very great injustice to both yourself and the society, as well as the profession which you represent, and the patients who trust you with their very lives.

We also have the man who says he "cannot lose the time." Surely none of us are so engrossed in the money side of the profession that we cease to be progressive. The business side of the profession is very important, and no doubt neglected, but the advantage gained by our discussions at our meetings of the business side of the profession, leaving the scientific entirely out, would yield returns many fold greater than the time loss represents. This excuse is a very poor one, as all of us spend more time on the street, at the drug store or elsewhere each week than would be represented by two meetings. Let us try to be more faithful to our calling.

As to the doctors, we claim to improve. I have before stated that we are not, nor can we be, stationary. Our sources of knowledge can only be three—our patrons themselves, our reading, and our association with other physicians. The latter is most valuable of all. Our profession is peculiar in that we as individuals are usually alone. The very nature of the work is such, day by day and night after night the busy physician is making his rounds of visits, alleviating suffering, saving life and doing good for his fellow-men, by himself. Since this is true, it is necessary that the doctor associate with oth-

ers at each opportunity, that they may become better friends. The better we know a man, understand his peculiarities, the better we like him. The reverse is usually true; the better others know us, the more they see and associate with us, the more they will approve of us. So it behooves each busy practitioner to avail himself of every opportunity to meet his fellow-practitioners, and by an interchange of ideas and experiences, derive mutual benefit. If you are practicing your profession as you did even ten years ago, you are behind. You must get new ideas and adopt new methods if you succeed in the work you have undertaken. No idea to succeed, unless it embodies the uplifting of the profession, improving your methods or the betterment of mankind, is worthy of the doctor who invents it.

I would suggest to the man of the profession who believes the society of no value, that he become a member for twelve months and that membership to mean that he would be active, manifesting as much interest in the society as he would in one of his most valued patients; and if he were not convinced at the end of the year that he had received a benefit, then he could acknowledge that his former opinion was correct.

Our mistakes of the past should be an advantage to us who are so anxious to see a large group of active members. No physician who is called on for a paper should fail to present that paper in person, or, if impossible to do that, he should send the paper. We should be more energetic, more devoted and more actively interested generally than we have been. If there be jealousies, animosities, suspicion, spitefulness, envy, put it aside as you would an unclean thing, and let love take the place of jealousy, envy and animosity, trust that of suspicion, and amiability that of spite. By throwing off these yokes we will be more useful, happier and an honor to the great profession we are representing.

Let us for the coming year have confidence in our ability to overcome all past weaknesses and go forward with a spirit of cooperation that we may attain a goal that represents the height of scientific achievement, knowledge and attainment.

Probably 90 per cent of the patients who find it necessary to visit sanitariums are recruited from sedentary occupations.

Their occupations in many cases account for their illness. Epitomized, it may be said

that lack of exercise is a very large contributing cause in the ills of mankind.

At the Battle Creek Sanitarium this fact has long been recognized and everything possible is done to combat sedentary effects.

A large and excellently equipped gymnasium forms a very important part of the health equipment. Classes are held constantly throughout the day, the form of exercise being constantly varied so as to provide proper exercise for persons in varying stages of health and strength. In addition a military march is given twice daily, during which the patients find themselves walking one and even two miles without the feeling of exhaustion or exertion.

In order to gain the advantage of outdoor exercise, frequent walking classes are organized under the direction of physical directors and short health-giving hikes are taken to points of interest in and around the city.

THE SCIENTIFIC TREATMENT OF ABDOMINAL PTOSIS.

The importance of abdominal support is being appreciated today as never before. A relaxed and sagging abdominal wall is no longer considered a harmless sequence of advancing years, a simple sign of overindulgence and lack of proper exercise. To the contrary, it is known to be a real pathologic condition attended by actual tissue changes and derangements of the local circulation that have a far-reaching influence on the whole body. More than this the effect on the nerves, those of the splanchnic area particularly, is such that a host of reflex ills may be expected sooner or later.

Fortunately, intelligent study of abdominal support has shown ways of successfully counteracting the effects of weakening of the abdominal muscles, and in this connection due recognition must be given to the work of Dr. Katherine L. Storm of Philadelphia. Dr. Storm was a pioneer in the scientific investigation of weakened and relaxed abdominal muscles, and the consequences therefrom. Dr. Storm's Abdominal Binder was the logical outcome of these studies and the way the profession have adopted this binder points conclusively to the prompt appreciation of its practical utility. Abdominal belts and supports have been devised in endless array, but until the Storm Binder became available, constriction and compression were usually mistaken for true upward support. As a result the average abdominal belt was not only an instrument of torment, but nearly, if not quite, valueless for the purposes for which it was intended. With the Storm Binder all these evils have been corrected, and instead of mere compression there is afforded a true uplift, with the lines of support upward and backward as they should be. Thus the Storm Binder easily performs the service required of it, and so comfortably at all times that the wearer, after a few hours, becomes unconscious of its presence. So efficient and uniformly beneficial has it proven that it has placed the treatment of abdominal sagging or ptosis on a new and scientific foundation. The Storm Binder, therefore, deserves the hearty support of medical men, since it represents progress in a needed direction and assures the proper and comfortable attainment of the results sought.—American Medicine, October, 1914.

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Anonymous communications will not appear in the columns of this Journal, no matter how meritorious they may be.

Editorials.

GASKELL AND THE PHYSIOLOGY OF THE HEART.

"The stirring events of recent weeks, when men's minds have been turned from the paths of intellectual life into other fields of human activity," says The Journal of the American Medical Association, "should not make us oblivious of the names which deserve honor because of what they represent in science. For this reason we shall not forego the opportunity to refer to the death of Dr. Walter Holbrook Gaskell at his home in England, September 4, 1914, at the age of sixty-seven years. To this talented physiologist, stimulated by the environment of the Cambridge school under the influence of Michael Foster and trained in Ludwig's laboratory at Leipzig, we owe some of the fundamental observations regarding the mechanism of the phenomenon known as heart-block—a condition today recognized clinically and studied experimentally wherever the medical sciences flourish. It was Gaskell who invented the term "heart-block" and produced it experimentally by clamping the auriculoventricular and sino-auricular grooves, which he calls "the two natural blocking points" of the muscular contraction wave. One of his biog-

raphers, Dr. Fielding H. Garrison of the Army Medical Museum in Washington has summarized the importance of Gaskell's endeavors in this field as follows: In his view, the original Stannius experiments become simple cases of temporary block. This view has been brilliantly confirmed by the discovery of the vestigial muscular structures known as the auriculoventricular bundle of His and the sino-auricular node of Keith and Flack; also by the clinical and pathologic findings in the disease described by Morgagni in 1761 and now known as heart-block or the Stokes-Adams syndrome. Gaskell even produced the two-, three- and four-time gallops of modern clinicians, in which the ventricle drops one or more of its beats. Schiff's observation that the ventricle of a dying heart beats slower than the auricle is interpreted as the effect of a gradually increasing block. Gaskell also produced the clinical condition known as "fibrillation of the heart" in an isolated strip of cardiac muscle, interpreting the phenomenon as due to blocking of the connections between individual muscle cells. In recent medicine the various rhythmic disorders of the heart are regarded, not as cases of nervous unbalance, but as the effects of blocking of the peristaltic wave which passes from sinus venosus to bulbus arteriosus, and from muscle fiber to muscle fiber.

"In these days, when the relative merits of the neurogenic and myogenic hypothesis of the causation of the heart-beat are still being debated vigorously, we may recall that it was the early work of Gaskell and of Engelmann in particular that furnished serious objections to the neurogenic thesis earlier supported. These physiologists came to the conclusion that the source of the cardiac rhythm was to be found, not in the ganglia scattered about its cavities, but in the muscular cells themselves. It was their contributions which inaugurated the modern revival of the myogenic theory.

"Aside from these classic researches on the motor mechanism of the heart, science owes to Gaskell numerous important contributions to other chapters of biology, notably on the sympathetic system and on organic evolution. To those who appreciate the confusing detail in the factors concerned in the latter field, the trend of Gaskell's mind may be described by his ability 'to state the problems in terms of biologic phenomena rather than in metaphysical terms.' "

ACTIVITY OF DIGESTIVE FERMENT PREPARATIONS.

"A recent bulletin of the Bureau of Chemistry emphasizes anew the importance of determining exactly the activity of digestive enzymes and ferments. The great difficulty with these preparations is that they do not keep well, that while active at first, many, after a time, lose their digestive activity. Examination of certain preparations supposed to contain definite enzymes or ferments showed that in reality they contained little, if any, of these agents. Other investigations showed that the manufacturers had employed the proper quantities of pepsin, pancreatin, diastase or similar enzymes, but no attempt had been made to determine their activity. On the other hand, disregarding scientific evidence as to the proper medium or combination of the enzymes, pepsin and trypsin, which tend to negative each other, have been combined; pepsin has been used in alkaline mediums, which destroy its activity, and trypsin has been combined with acid substances not suited to it. Further errors have arisen through overheating enzymes or through issuing them in strong alcoholic solutions, lessening their effectiveness. Manufacturers are warned by the Department of Agriculture, through the Bureau of Chemistry, that combinations claiming to contain digestive enzymes must be active when sold. If preparations tend to deteriorate in a short time, each lot should be dated and not sold after the period when they become inactive. While every manufacturer must be considered innocent until proved guilty, and ignorant until proved knowing," says The Journal of the American Medical Association, "it is a matter of knowledge that many manufacturers have marketed their various digestive mixtures with full appreciation of their worthlessness. The Council on Pharmacy and Chemistry nearly seven years ago called attention to the various digestive impossibilities on the market. Practically all of these are still sold. To sell a sick patient a mass of inert material which he believes to be active is not only perpetration of a fraud on the patient, but does gross injury to the physician who prescribes for him and endangers still further the patient's health. It is to be hoped that the government will adopt measures that will prevent the sale of such useless and scientifically absurd combinations."

Editorial Clippings.

WHO IS HE?

There is a member of our society who compels our admiration. He is always present at meetings, and he is always on time. Well informed, conversant with all subjects pertaining to medicine, recognized as one of the county's brilliant physicians, he is found in his seat when roll is called. If he has a paper to read before the society, he exhausts the subject; if he serves on a committee, that committee makes a report; if he represents this society at a convention, that convention recognizes his presence.

When a paper is read and the discussion called for, he does not sit stolidly still, but rises to his feet and contributes to the general information from his well-stored mind, from his experiences or from his observations. It sometimes seems that he regards the meetings of our society as a class room, where he should study his subject beforehand and give an account of himself to a not always gentle teacher. Into the smoke-charged atmosphere which follows battles of discussion he oftentimes projects an intellectual light, in which we see more clearly the path that lies before us.

What does this man hope to gain for his faithfulness to the society—patronage? He has about as much already as he can conscientiously attend to. Popularity? Of that he has a good measure, for the close attention which he pays to the reading and discussion of papers flatters the man who has the floor. Power? He would not know how to use it; his sense of square dealing would make it a straw in his hand.

He is ambitious! Yes, now you have it. Ambitious—for the good name of an organization which has always stood for the highest medical development in this county. Ambitious—for her still further development. Ambitious—in losing no opportunity to learn from others. Ambitious—in helping his colleagues see the truth as he perceives it. Who is he? Are you the man?—*Bulletin, Blair County (Pa.) Medical Society.*

THE SIGNIFICANCE OF HIGH ARTERIAL PRESSURE.

Dr. Riesman calls attention to a very pertinent question in connection with blood pressure taking. What is its exact value? Blood pressure measurement has a wide range of usefulness and is one of the most important advances in recent medical science. High

pressure does not always indicate serious foreboding. Dr. Riesman does a service in reminding us not to get excited over the single symptom of high pressure, for it is only when it is considered in connection with the other clinical symptoms or pathological findings that it should serve as a basis for prognosis. The laity is becoming very generally informed and often misinformed upon the subject of blood pressure, and our careless use of the term "high blood pressure" may often create a false alarm and an unjust one. There is a wide range to normal pressure and we must study the whole picture before arriving at a conclusion.—*Pennsylvania Medical Journal*.

Personals and News Items.

Dr. Charles L. Hale has moved from Holly Grove to Maple.

Dr. L. M. Crow of Des Arc visited in Little Rock last month.

Dr. C. S. Ellis of Shelbyville succeeds Dr. Robinson at Hazen.

Dr. Alvin Strauss of Little Rock recently visited in Pine Bluff.

Dr. J. C. Cunningham of Little Rock has returned from Charleston, W. Va.

Dr. William Breathwit and daughter of Pine Bluff visited in Little Rock last month.

Give the secretary of your county society a pleasant surprise by paying your dues for 1915.

Dr. R. L. Saxon of Little Rock visited in Colorado Springs during the Christmas holidays.

Dr. and Mrs. C. R. Shinault and little daughter, Josephine, are spending the winter at Biloxi, Miss.

Dr. George W. Crile of Cleveland, Ohio, has gone to Paris, France. He will be attached to the American Ambulance Hospital.

Dr. F. C. Robinson of Hazen is taking a three months' post-graduate course in New Orleans. On his return Dr. Robinson will locate in Little Rock.

Dr. C. P. Meriwether, secretary of the Arkansas Medical Society, and Arkansas Tuberculosis Sanatorium, has been appointed a member of the State Board of Charities by Governor Hays.

The Program Committee of the State Society desires to remind the members that it

is time to send in the titles of papers which they expect to read at the May meeting in Little Rock.

In addition to the names mentioned in our last issue of the Arkansas physicians receiving the degree of Fellowship in the American College of Surgeons, at the third convocation, November 16, 1914, at Washington, D. C., we unintentionally omitted the following: James A. Foltz, Fort Smith; Andrew S. Gregg, Fayetteville, and J. J. Smith, Paris.

A few counties are still somewhat slow and indifferent about holding meetings, but we have assurances from them that they will take on new activity and enter the spirit of society work which they readily acknowledge is the most effective method of increasing their usefulness to the people and enlarging their own capacity for doing good.

REPORT OF PHYSICIANS LICENSED BY THE STATE MEDICAL BOARD OF THE ARKANSAS MEDICAL SOCIETY DURING 1914.

By W. S. Stewart, Secretary.

During the year 1914 there were ninety-four physicians licensed by this board. The total number of candidates examined was eighty-two, of whom sixty-six passed and sixteen failed. Twenty-eight applicants were licensed through reciprocity.

The following were licensed by examination: C. J. Baker, Osear Barkdale, J. A. Bogart, E. W. Bolinger, C. E. Byler, Cecil Bryan; C. B. Callen, W. B. Cantrell, F. L. Castleberry, D. T. Cheairs, W. D. Copeland, S. G. Daniel, W. H. DeClark, Homer Dickens, W. E. Estabrook, R. M. Eubanks, J. D. Fakes, W. R. Felts, C. W. Garrison, J. R. Graves, J. C. Graves, F. M. Halbert, Elmer Harley, A. C. Haney, T. P. Harper, J. M. Hill, T. B. Hill, A. H. Hudgins, A. L. Jobe, R. L. Johnson, J. E. Johnson, H. T. Jones, L. L. Keller, Dee C. Lee, T. A. Lewis, W. W. Lewis, J. J. Livingston, W. T. Lowe, F. C. Maguire, E. L. Matthews, H. B. May, T. J. Meacham, J. H. Mitchell, W. A. Moore, E. C. Moulton, J. M. Muse, I. N. McCollum, N. M. McFarland, C. E. Oates, E. W. Prothro, W. H. Poynor, H. H. Rhinehart, S. V. Roberts, G. S. Saylor, G. H. Seiaroni, J. C. Simpson, E. E. Smith, E. L. Stephens, S. E. Stroube, J. E. M. Taylor, S. E. Thompson, G. E. Tucker, J. A. White, A. C. Whittington, C. A. Williams, G. C. Wilson.

The following were licensed through reciprocity: J. M. Best, Illinois; Emmett Doil Butler, Mississippi; T. S. Burgess, Oklahoma; John Capell, Oklahoma; J. C. Chaney, Oklahoma; S. H. Cheney, Georgia; I. A. Clark, Oklahoma; J. T. Clark, Indiana; B. C. Clark, Mississippi; F. E. Diemer, Oklahoma; S. A. Ferrell, Oklahoma; V. R. Fox, Kentucky; R. V. French, Kentucky; Dewell Gann, Jr., Indiana; J. M. Hancock, Illinois; S. W. Hooke, Indiana; Edward Kultgen, Illinois; H. W. A. Lee, Mississippi; N. C. McCown, Kentucky; E. C. McGehee, Louisiana; R. D. McKay, Illinois; G. F. McLeod, Louisiana; T. S. Norwood, Louisiana; J. W. Pendley, Kentucky; W. D. Phillips, Oklahoma; M. T. Smith, Oklahoma; J. J. Stephens, Oklahoma; A. C. Shipp.

During the year there were twenty-four licentiates of this board endorsed to other state boards for reciprocal recognition, as follows: C. S. Allen, Oklahoma; N. D. Carter, Texas; W. A. Carroll, Texas; D. R. Dorente, Oklahoma; L. R. Ellis, California; L. B. Estes, Michigan; S. B. Gee, Texas; H. J. Hall, Oklahoma; O. O. Hammonds, Oklahoma; C. W. Hill, Texas; E. E. Holloway, Illinois; E. L. Haney, Texas; C. A. Harvey-Sparks, Oklahoma; K. M. Kelley, Texas; C. N. Pate, Texas; T. H. Parmley, Texas; P. R. Powell, Michigan; J. H. Rowland, California; Rosa B. Rowland, California; J. H. Weaver, Texas; G. V. Whitney, Texas; G. C. Wilson, Georgia; Earl U. Wood, Texas; W. M. Ycargan, Oklahoma.

POISONOUS FLY DESTROYERS.

The December issue of The Journal of the Michigan State Medical Society calls attention editorially to the danger of using poisonous fly destroyers.

From July 1 to October 15, 1914, forty-five cases of poisoning of young children were reported in the press of a few states, and it is pointed out that the symptoms of arsenical poisoning and cholera infantum being very similar, there are possibly many more cases of the kind. It might be well in view of this danger for physicians to eliminate the possibility of arsenical poisoning before diagnosing a case as cholera infantum. A few years ago there was considerable agitation against the use of phosphorous matches, partly because of some children being poisoned by eating or sucking the heads of the matches. There are doubtless many more cases of poisoning from the poisonous fly destroyers. Phosphorous matches have been abolished, so should be poisonous fly destroyers.

It seems this danger has already been recognized by the authorities in far away South Africa and the sale has been forbidden, except by licensed chemists, of certain arsenical fly destroyers, more particularly the tin boxes which have a wick or wicks through which the poisoned water is drawn. The fact that sugar is added to draw the flies makes these boxes especially dangerous to young children; furthermore, all these poisonous fly destroyers are usually placed on the window sill and children as well as flies are attracted to the windows and the poisons are thus within their reach.

Both the blotting paper impregnated with arsenic (which is put in an open saucer with water and sugar) or the tin boxes with wicks to draw the poisoned water to the surface are extensively used, and there is probably no poison so commonly and unnecessarily used where it is perforce within the reach of young children as these various arsenical fly destroyers. In country homes where it often takes some hours to get a physician, and even in our cities among the foreign born, where the parents are, as is well known, slow to call the services of a physician for childish ailments, the danger is especially great. There are as effective and more sanitary ways of killing flies. *Poisonous fly destroyers are an unnecessary evil and should be relegated to the past like the phosphorous match.*

A TIMELY QUESTION.

What are you going to do with your drug and alcohol habits? Professional opinion has advanced to the position of regarding these addictions as a disease which is amenable to treatment. Sanitarium care is necessary to the successful handling of such patients, but with the aids afforded by a well-equipped institution, the results of treatment are very satisfactory.

At the Pettey & Wallace Sanitarium, Memphis, Tenn., the most approved methods are employed and the work is carried out under the personal supervision of Dr. Pettey, who originated and published to the profession the now generally accepted method of treatment. When referring patients of this class, don't forget that the man who originated the treatment and who devotes his entire time to it is better equipped to do successful work than one with less experience.

The complete work of Dr. Pettey, a volume of more than 500 pages, can be had of him, or of the publishers, F. A. Davis Co., Philadelphia. (Advertisement.)

FOR SALE—One Wantz X-ray Coil, manufactured by the Victor Electric Company, one Western Coil, 16-inch, manufactured by the Schiedel-Western Electric Company. Both machines suitable for therapeutic and heavy radiographic work. In perfect condition, and at a reasonable price. Address, Dr. A. M. Zell, Bankers Trust Building, Little Rock, Ark. (Advt.)

MINERAL WELLS, TEXAS

An American Spa.

Invites investigation by the profession as a resort, offering a variety of *Eliminative Natural Mineral Waters* and modern facilities for physical recreation and mental relaxation.

Analytic content of the waters from the different wells show from 98 to 365 grains of the combined sulphates of sodium and magnesium, per U. S. gallon, together with the carbonates and bicarbonates of sodium, calcium and magnesium and the chlorides of potassium and sodium in varying amounts.

Physiologic action—ranging from the freely diuretic and mildly laxative to the strongly purgative. Population, 6,000; elevation, 1,200 feet; paved streets, modern sanitation. Good hotels and baths. Six elegant drinking pavilions with an aggregate floor space of 100,000 square feet.

THE COMMERCIAL CLUB

MINERAL WELLS, :: :: :: TEXAS
(Advertisement.)

Abstracts.

THE SOCIAL STATUS OF MEDICAL PRACTICE.

In an address before the graduating class of St. Louis University, June 1, 1914, E. P. Lyon, Minneapolis (Journal A. M. A., December 19, 1914), dwells on the importance of the physician adjusting his ideals and his career in accordance with the altruistic rather than the egoistic motives. In a certain sense the profession of medicine is a business proposition. It is the inevitable result of the altruistic positions of the present day that the physician must become less and less the seller of healing and more and more a captain of health. The public health campaigns at the present day show this tendency, but he believes that still too few physicians are accurately informed on matters of public health or capable of guiding the public in these matters as they should. He recommends a book

by Richard C. Cabot on Social Service and the Art of Healing as especially suitable for medical graduate reading. We must cure people so that they will stay cured, and we must, therefore, not fail to look at the social background and join hands with the expert who diagnoses and treats the ills of environment and state. The matters of public health and service are important co-operative enterprises in which every doctor should take part. There should also be co-operation between physicians in their special lines, and he holds that physicians are apt to take too narrow views in regard to the co-operative associations of their patients, which include also medical services in their programs, and points out the recent experiences with the insurance laws abroad, which, instead of crippling the profession, have appreciably increased the average compensation of the physician. Of course, the question of medical experts or specialists arises; when one or many are required, how the services of such are to be met in this general plan of co-operation, and he sees its solution in combinations of experts in which the sick man becomes the patient of the group which renders the service needed for a single charge.

HYDROCELE.

The treatment of hydrocele, with special reference to phenol injection, is the subject of a paper by R. H. Herbst, Chicago (Journal A. M. A., December 19, 1914). It is, he says, rarely an independent malady. There is usually some underlying factor, hence he objects to the open operation as a method of treatment. At least a preliminary tapping and evacuation of the sac is always indicated before choosing between the open operation and the injection of phenol. If preliminary tapping is the practice it will prevent the too common error of opening the sac and finding an advanced tuberculosis behind it, or syphilitic lesions that might have been cured by specific treatment. Eliminating these effusions into the sac of the tunica vaginalis, which accompany acute affections of the epididymis and which usually disappear as the acute process subsides, Herbst holds that the results following tapping and injection of phenol are as good as are any seen following the open operations, provided the sac be washed with sterile water after the serum has been evacuated and before the phenol injection. The recurrences following the injection

of phenol without preliminary washing were due to the serum protecting the sac wall and preventing the action of the phenol. To avoid this it has been his habit to test the return fluid for albumin and continue the washing until the fluid gives no return to nitric acid. The injection of sterile water also prevents the not infrequent accident of injecting the phenol into the scrotal tissues. During the emptying of a well-filled tunica vaginalis the receding sac wall is likely to draw away from the end of the cannula without the knowledge of the operator. If this does occur and the water is injected, it does not return, but remains in the tissues which appear edematous. In this case the sac must be allowed to fill again with serum before attempting the phenol injection. The use of the Belfield hydrocele trocar and cannula will practically always prevent this accident, because it fixes the sac by passing through two of its walls. The refilling of the sac, which is commonly seen during the first twenty-four hours after the injection, is usually due to the action of the phenol, and disappears spontaneously in a few days. For the number of years that he has been practicing this method of washing out the sac, he has seen very few recurrences, and these did not reappear after a simple evacuation. When the sac has become greatly thickened, excision is greatly preferable to either eversion or injection. He has not seen any toxic effect of the phenol nor atrophy of the testicle after injection.

LYMPHOCYTOSIS IN TUBERCULAR DISEASE.

John Ritter, Chicago (Journal A. M. A., December 26, 1914), calls attention to the advantages of examining sputum chemically as well as microscopically in the diagnosis of tuberculosis, especially in the earlier stages of the disease, when the sputum is supposed to be still free from the bacillus. We may thus arrive at an earlier and more definite diagnosis of tuberculosis. The presence of small mononuclear lymphocytes in body fluids other than sputa is considered fairly clear evidence of the presence of an active tuberculous process, and this goes to stamp tuberculosis as a lymphocytic disease. In a suspected beginning pulmonary tuberculosis, a lymphocytic picture of the sputum under the microscope should stimulate a persistent search for the bacillus, and if a chemical sputum analysis for the presence of albumin is also made, we may arrive at a positive conclusion in ad-

vance of being able to find the bacilli. Ritter gives the results in brief of the examination of 199 samples of sputa of suspected tuberculous individuals, after a careful search has been made, unsuccessfully, for the Koch bacillus. Fifty-three of the examinations were bacilli positive, forty also gave a positive albumin of small mononuclear cells. There remained 146 specimens of bacilli negative, forty of which gave a distinct lymphocytic picture, and an albumin content. Thirty-four more gave a negative lymphocytic picture but positive albumin content, in variable amounts, by chemical analysis. Seventeen other sputum specimens were also negative for the albumin, but positive for the mononuclear cells, showing a lymphocytosis of more than 50 per cent. As regards the significance of these different findings, he says that a distinct lymphocytic picture with a positive albumin content in the absence of bacilli make tuberculosis possible, while the absence of albumin in an otherwise lymphocytic sputum is not so conclusive, but strongly suggests tuberculous origin. Several case reports are given, which bear on these points. Of the remaining fifty-five examinations, seventeen were decided as non-tuberculous. In thirty-six of the remaining thirty-eight no bacilli were found, and in two there was no record saved. In seven cases the albumin content was not recorded, and in four the sputum was too bloody for the test. Those remaining all showed albumin in variable amounts, but the lymphocytic pictures were not studied or there were other reasons for not being taken account of. From these observations Ritter concludes that: "1. A sputum lymphocytosis showing under the microscope 50 per cent or more of the small mononuclear leukocytes (lymphocytes) with a moderate amount of albumin on being chemically tested, speaks strongly for the presence of pulmonary tuberculosis. 2. In preincipient or incipient cases of pulmonary tuberculosis, a lymphocytic sputum is usually present with a greater or lesser albumin content; in this the tubercle bacillus may be entirely absent, or only an occasional bacillus found. 3. The presence of the mononuclear lymphocytes in sputum in preponderant amounts and a positive albumin test is simply the forerunner, or near the beginning of positive findings, for the tubercle bacillus, if not already present in the expectorations, will soon be found. 4. In a sputum giving a lymphocytic picture in the absence of tubercular bacilli, a positive

albumin content has been demonstrated; this is confirmatory evidence that the sputum is that from a person suffering from pulmonary tuberculosis." A careful microscopic study of each sample of sputum should be first made, and if this is negative, with an abundance of small mononuclear lymphocytes by albumin test, one is justified in assuming that this is expectoration from a positively tuberculous patient.

MALARIA AND THE PUERPERIUM.

After noticing the facts in regard to the relations of malaria and the puerperal condition, as noticed by physicians in the tropics and elsewhere, M. J. Seifert, Chicago (Journal A. M. A., December 19, 1914), reports the case of a woman, aged twenty-five, who had never lived in a strictly malarial region, or suspected malarial infection, who suffered from irregular chills and fever in two consecutive confinements, and never at any other time, with no pelvic involvement and with positive microscopic findings of the tertian parasite in her second confinement, which, he says, is worthy of attention. She had also suffered from chronic nephritis, and malaria was only diagnosed, or sought for in the diagnosis, until almost every other possible disease had been excluded. The most important part of this paper, as he says, is the lesson to be learned in regard to the need of thoroughness of diagnosis. Another unusual experience in the case was some late gonorrheal complications, lochial discharges and pelvic tenderness, occurring thirty days after labor, long after other conditions were normal. The whole complex was a confusing one and emphasizes the fact that all cases of fever after childbirth are not necessarily puerperal septicemia.

New and Nonofficial Remedies.

Since publication of New and Nonofficial Remedies, 1914, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

PASTEUR ANTIRABIC VACCINE.—The virus is prepared according to the method of the Hygienic Laboratory, Washington, D. C. A dose is sent by mail each day. Twenty-one to twenty-five doses constitute a treatment. Laboratory of W. T. McDougall, Kansas City, Kan.

SOLUTION PITUITARY EXTRACT.—A solution of a purified extract of the posterior lobe of the pituitary gland of the ox. It is assayed so that 1 c.c. represents 0.2 gm. fresh gland. It is used by hypodermic or intramuscular injection mainly to stimulate the uterus contraction in labor. It is supplied in the form of ampules containing 1 c.c. solution pituitary extract. The H. K. Mulford Co., Philadelphia, Pa. (Journal A. M. A., December 5, 1914, p. 2043.)

RADIUM BROMIDE.—The market supply is a mixture of radium bromide and barium bromide and is sold on the basis of its radium content. It is sold for use in applicators, inhalatoriums and injection solutions. Radium bromide is marketed as:

Radium Bromide, Radium Company of America: All deliveries are made subject to the test of the U. S. Bureau of Standards or any reputable expert designated by the purchaser. The Radium Company of America, Sellersville, Pa.

Radium Bromide, Standard Chemical Co.: Sold by the Radium Chemical Co., Pittsburg, Pa. (Journal A. M. A., December 26, 1914, p. 2289.)

RADIUM CARBONATE.—The market supply is usually a mixture of radium carbonate and barium carbonate, and is sold on the basis of its radium content. It is sold for use in applicators. Radium carbonate is marketed as:

Radium Carbonate, Standard Chemical Co.: Sold by the Radium Chemical Co., Pittsburg, Pa. (Journal A. M. A., December 26, 1914, p. 2289.)

ARBUTIN, MERCK.—This brand of arbutin has been accepted for inclusion with New and Nonofficial Remedies. Merck & Co., New York.

RADIUM CHLORIDE, RADIUM CO. OF AMERICA.—This form of radium chloride has been accepted for inclusion with New and Nonofficial Remedies. Radium Co. of America, Sellersville, Pa.

RADIUM SULPHATE, RADIUM CO. OF AMERICA.—This form of radium sulphate has been accepted for inclusion with New and Nonofficial remedies. Radium Co. of America, Sellersville, Pa. (Journal A. M. A., December 26, 1914, p. 2290.)

CUPRIC APPLICATORS (COPPER SULPHATE 20-25 PER CENT).—Wooden sticks six and one-half inches long, tipped with a mixture of copper sulphate, alum and potassium nitrate, containing 20 to 25 per cent copper sulphate.

Antiseptic Supply Co., New York. (Journal A. M. A., December 26, 1914, p. 2290.)

During December the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Nonofficial Remedies:

Merck & Co.:

Arbutin, Merck.

Benzene, Merck H. P., Crystallizable.

Digitoxin, Merck.

Silver Citrate.

Silver Lactate.

E. R. Squibb & Sons:

Pyocyaneus Vaccine: boxes of two ampules containing respectively 100 and 500 million killed bacilli.

Propaganda for Reform.

ALBORUM.—Alborum is sold by the Whitehouse Chemical Co., Lynchburg, Va., and is stated to contain boric acid, alum, phenol and oil of peppermint, the amounts not being declared. This preparation lacks originality and is unscientific. Its exploitation being held contrary to the best interests of the public and the profession, alborum was refused recognition by the Council on Pharmacy and Chemistry. (Journal A. M. A., December 12, 1914, p. 2148.)

BETUL-OL.—Betul-ol is a methyl salicylate preparation advertised by E. Fougera & Co., New York, to physicians, and indirectly to the public as an external analgesic and anti-rheumatic. It was refused recognition by the Council on Pharmacy and Chemistry because the statements regarding its composition are vague, misleading and incorrect; because unwarranted therapeutic claims are made for it; because the recommendations are likely to lead the public to the self-treatment of rheumatism, with serious consequences. (Journal A. M. A., December 12, 1914, p. 2148.)

CYSTOGEN, CYSTOGEN APERIENT AND CYSTOGEN-LITHIA.—Cystogen is the therapeutically suggestive name applied to hexamethylenamin by the Cystogen Chemical Co., St. Louis, Mo. By means of extravagant claims, unwarranted assertions and pseudo-scientific arguments the Cystogen Chemical Co. advises the use of cystogen aperient or cystogen-lithia, or all three, in a well-nigh endless number of diseases. The promoters take good care that every cystogen prescription is likely to spread the cystogen gospel among the people. In an-

nouncing the rejection of these products, the Council on Pharmacy and Chemistry calls attention to the conservative discussion of hexamethylenamin which appears in its publication, "Useful Drugs." (Journal A. M. A., December 12, 1914, p. 2149.)

CYSTO-SEDATIVE.—Cysto-sedative (Strong, Cobb & Co., Cleveland, Ohio) is said to contain thuja occidentalis, pichi, saw palmetto berries, triticum repens and hyoscyamus. Cysto-sedative was refused recognition by the Council on Pharmacy and Chemistry because unwarranted and preposterous claims were made in regard to its preparation and because unwarranted therapeutic claims were made for this unscientific mixture. (Journal A. M. A., December 12, 1914, p. 2149.)

ERGOAPIOL.—Ergoapiol (Martin H. Smith Co., New York) is a mixture put up in capsules, each of which is said to contain apiol (special M. H. S.) 5 gr., ergotin 1 gr., oil savin $\frac{1}{2}$ gr., aloin $\frac{1}{8}$ gr. Examination indicated that each capsule did not contain 5 gr. apiol, but an oleoresin of parsley seed. The recommendations in the advertising matter invite its indiscriminate use. The Council on Pharmacy and Chemistry refused to recognize this unscientific mixture of ingredients which has widely differing therapeutic effects. (Journal A. M. A., December 12, 1914, p. 2149.)

APERGOLS.—Apergols, put out by H. K. Wampole Co., Inc., is apparently an inversion of the name ergoapiol, and the preparation appears to have essentially the same formula. In general the claims made for apergols are the same as those made for ergoapiol. The council refused admission to apergols because they are advertised indirectly to the public; because of unwarranted therapeutic claims; because of the nondescriptive name, and because the product is unscientific. (Journal A. M. A., December 12, 1914, p. 2149.)

GASTROGEN TABLETS.—These tablets, recommended by the Bristol-Myers Co., New York, to be used in connection with its other nostrum, sal hepatica, are said to contain pepsin, calcium carbonate, calcium phosphate and "aromatics." As patients who need an anti-acid do not need pepsin, and vice versa, the preparation is unscientific and the therapeutic claims made for it unwarranted. Gastrogen tablets were refused recognition by the Council on Pharmacy and Chemistry. (Journal A. M. A., December 12, 1914, p. 2149.)

IODALIA.—Iodalia (George J. Wallau, Inc.) is claimed to be a valuable substitute for iodides. Examination in the A. M. A. Chemical Laboratory indicated that when administered it would act like ordinary iodides, and that to obtain the equivalent of 20 gr. potassium iodid it would be necessary to give the contents of a one-dollar bottle of iodalia. Particularly reprehensible among the many unwarranted claims made, is one which suggests to the public that iodalia will protect against infectious diseases. The council voted that iodalia be refused recognition. (Journal A. M. A., December 12, 1914, p. 2149.)

IODOTONE.—Eimer and Amend, who market iodotone, state that it is a glycerin solution of hydrogen iodid, containing 1 gr. iodine to each fluid dram. While iodotone must act like ordinary iodides and while nearly one ounce of glycerin must be swallowed to obtain the equivalent of 10 gr. potassium iodid, the unwarranted claims are made that iodotone is superior to iodides. Because of misleading claims, and because the name iodotone is likely to suggest its use as a general tonic, iodotone was refused recognition by the Council on Pharmacy and Chemistry. (Journal A. M. A., December 12, 1914, p. 2149.)

NOURRY WINE.—This wine, sold by E. Fougere & Co., is said to contain 12 per cent alcohol and $1\frac{1}{2}$ grs. iodine to the fluid ounce, in combination with tannin. Examination in the A. M. A. Chemical Laboratory showed that its action would be that of ordinary iodid and that the nonproduction of iodism is due to the small amount of iodine it contains. Claims are made which are prone to lead to its use both by the profession and the public in conditions in which effective medication is called for. The Council on Pharmacy and Chemistry refused recognition to nourry wine. (Journal A. M. A., December 12, 1914, p. 2150.)

WARNER'S SAFE REMEDY.—"Warner's Safe Remedy for the Kidneys and Liver and Bright's Disease" is reported by the A. M. A. Chemical Laboratory to contain alcohol, by volume, 14.40 per cent; glycerin, by weight, 7.72 per cent; potassium nitrate 1.75 per cent, and vegetable extractives. This preparation consists essentially of alcohol and potassium nitrate. Alcohol is contraindicated in inflammatory diseases of the kidneys and potassium nitrate is a kidney irritant. Sufferers from kidney diseases who take Warner's Safe Remedy will shorten their lives. (Journal A. M. A., December 19, 1914, p. 2246.)

CYPRIDOL CAPSULES.—Cypridol capsules, sold by E. Fougere & Co., New York, are stated to contain mercuric iodid dissolved in oil. The Council on Pharmacy and Chemistry refused recognition to cypridol capsules because they were sold under unwarranted therapeutic claims, and because they were marketed in a way to appeal to the public. If the capsules are once prescribed, the directions on the bottle and the full instructions for the treatment of syphilis which accompanies the bottle is likely to lead the patient to attempt to treat his malady on his own accord and thus probably forfeit his chances of a cure. Physicians who want to use a solution of mercuric iodid in oil should have their pharmacist prepare it for them. (Journal A. M. A., December 19, 1914, p. 2247.)

INTESTINAL ANTISEPTIC "A".—The Abbott Alkaloidal Co. advertises Intestinal Antiseptic "A" as: "A scientifically blended and physiologically adjusted mixture, of the pure sulphocarbolates of calcium, sodium and zinc, grs. 5, with bismuth subsalicylate, gr. $\frac{1}{4}$, and aromatics." The Council on Pharmacy and Chemistry refused recognition to this proprietary because the formula does not indicate the proportionate amounts of the several sulphocarbolates; because the name is therapeutically suggestive and an invitation for the use of the preparation by the public, and because exaggerated therapeutic claims are made for it. The claims which are made are most extreme; they contrast sharply with the low esteem in which the phenolsulphonates (sulphocarbolates) are generally held. It does not appear that the claims have been substantiated by proper evidence. (Journal A. M. A., December 19, 1914, p. 2247.)

KELLER'S TUBERCULIN TEST PLATE.—This appears to be an attempt to exploit the Moro tuberculin ointment. The test does not discriminate between active and latent tuberculosis. As most adult persons have experienced tubercular infection at some time in life, a large majority of persons will respond positively to the test. (Journal A. M. A., December 19, 1914, p. 2250.)

Obituary.

VERMILLION.—In Little Rock, on Friday, December 11, 1914, Dr. William H. Vermillion of Bigelow, aged seventy-one years.

County Societies.

GREENE COUNTY.

The Greene County Medical Society have elected the following officers for the ensuing year: President, Dr. G. T. Hopkins; vice presidents, Drs. R. J. Haley, J. G. McKenzie and George Bridges; secretary-treasurer, Dr. F. M. Scott, Paragould.

HOWARD-PIKE COUNTY.

(Reported by A. Wilson Hale, Sec'y.)

At the regular December meeting of the Howard-Pike County Medical Society the following officers were elected for 1915: President, Dr. J. L. Roberts, Murfreesboro; vice president, J. S. Hopkins, Nashville; secretary, Dr. A. Wilson Hale, Nashville; treasurer, Dr. J. T. Helcombe, Mineral Springs. Dr. E. V. Dildy was elected delegate to the State Society meeting, with Dr. J. S. Hopkins alternate.

DREW COUNTY.

(Reported by W. A. Brown, Sec'y.)

The Drew County Medical Society met in annual session at Monticello, December 8, 1914. The officers for the ensuing year were elected: Dr. W. A. Brown, president; Dr. W. C. Kimbro, vice president; Dr. A. S. J. Collins, secretary-treasurer; Dr. E. R. Cotham, censor.

The society adjourned to meet the second Tuesday in March, 1915, at Monticello.

BRADLEY COUNTY.

(Reported by S. H. Barnett, Sec'y.)

Be it Resolved by the Bradley County Medical Society, That, in our opinion, the services of Dr. J. L. Greene during the three years in which he held the position of superintendent of the State Hospital for Nervous Diseases were of the highest order from a scientific, economical and administrative point of view, and that any lowering of the excellence which he had prescribed for the institution, and to which it was being rapidly lifted, would do incalculable injury to the people of the state, and would be nothing short of a calamity to the unfortunate beings whose distressing condition forces them to become wards of the state.

Resolved further, That we urge upon those in authority a consideration of the tremendous responsibility which their official posi-

tion entails upon them in this crisis, to the end that they may bring to the high import which the present situation invites, the most earnest, patriotic and splendid efforts at their command.

Be it Resolved further, That a copy of these resolutions be spread on the minutes of this society and a copy sent the Arkansas Gazette and forwarded to The Journal of the Arkansas Medical Society.

INDEPENDENCE COUNTY.

(Reported by S. A. Drennen, Sec'y.)

The Independence County Medical Society met in regular session December 7, at Batesville, with the following members present: Drs. Bone, McAdams, Gray, Rodman, Johnston, Moore, Hayden, Craig, Dorr, Robertson, Kennerly, Lawrence, Evans, Ball, Case, Ivy and Drennen.

Officers for the ensuing year were elected as follows: Dr. McAdams, president; Dr. Craig, vice president; Dr. S. A. Drennen, secretary; Drs. Lawrence and Moore, delegates to the State Society meeting, with Drs. Jeffrey and Hayden, alternates.

A resolution expressing the regret over Dr. Greene's resignation from the State Hospital failed to pass and was tabled for next meeting.

A very interesting program was rendered by the following members: "Incipient Pulmonary Tuberculosis," by Dr. Hinkle; "Embolus of the Pulmonary Artery," by Dr. L. T. Evans; "Anaphylaxis," by Dr. McAdams.

Members on program for the next meeting are: Drs. Moore, Case, Ivy, Robertson, Bone and Dorr.

There being no further business, the meeting adjourned to meet again the second Monday night in February, 1915.

PRAIRIE COUNTY.

(Reported by James Parker, Sec'y.)

The Prairie County Medical Society held its regular meeting at this place December 21. Members present: Dr. J. C. Gilliam, president, Des Arc; Dr. W. W. Hipolite, DeVall's Bluff; Dr. F. A. Hipolite, DeVall's Bluff; Dr. J. R. Lynn, Hazen; Dr. F. C. Robinson, Hazen; Dr. James Parker, secretary, DeVall's Bluff.

Dr. J. R. Lynn read a paper on "Blood Pressure."

The society endorsed the action of the governor in the removal of the State Charity Board, and deplored deeply the loss to the State Hospital of the services of so able an alienist as Dr. Greene.

The following officers were elected to serve the ensuing year: Dr. W. W. Hipolite, president; Dr. F. A. Hipolite, treasurer; Dr. James Parker, secretary.

MISSISSIPPI COUNTY.

(Reported by E. E. Craig, Sec'y.)

The Mississippi County Medical Society met in regular session at Blytheville in the Business Men's Club Room. The following members answered roll call: Drs. Hudson, Craig, Sanders, Taylor, Usrey, Turrentine and Ferguson.

There being no unfinished or new business, our attention was turned to the scientific part of the program, in which Dr. J. F. Sanders read a most valuable paper, entitled "Fever as a Symptom—Its Diagnostic Value," and in his usual manner exhausted the subject.

This meeting closed the fiscal year of our work, and new officers were elected for the ensuing year: President, Dr. A. E. Turrentine; vice president, Dr. W. S. McCall; secretary and treasurer, Dr. E. E. Craig; delegate to the state meeting, Dr. R. P. Nall; board of censors, T. F. Taylor, T. F. Hudson and J. F. Sanders.

The following were appointed by the president as committee on public health and legislation: O. Howton, H. F. Crawford and W. S. McCall.

Dr. T. F. Hudson of Luxora, our retiring president, read a most valuable paper, entitled "Thoughts Inspired Along the Highway of the Mississippi County Medical Society." In this beautiful address many true things for study were brought out, and every member present appreciated it so much that it was ordered sent to The Journal of the Arkansas Medical Society for publication.

We have some splendid material in Mississippi County Medical Society, and we are going to try to make this the best year that the society has ever experienced.

PULASKI COUNTY.

The Pulaski County Medical Society have elected the following officers for the ensuing year: President, J. B. Dooley; vice president, A. M. Zell; secretary, S. M. Gates; treasurer, William R. Bathurst; board of

censors, W. A. Snodgrass, R. L. Saxon and A. E. Harris.

President Dooley has announced the following committees:

Program and Scientific Work—S. M. Gates, Robert Caldwell and S. W. Hooke.

Public Health and Legislation—O. K. Judd, A. Watkins and H. H. Kirby.

Social Entertainments and Refreshments—F. Vinsonhale, William R. Bathurst and Thos. H. Cates.

Registration of Trained Nurses—A. M. Zell, J. V. Falisi and Osear Gray.

Printing and Finance and Claims—J. G. Watkins, R. L. Maxwell and C. C. Reed.

The program from January 11 to April 5 will be as follows:

January 11—"Deep X-ray Therapy," by A. M. Zell.

January 25—"Cerebral Apoplexy," by George B. Fletcher.

February 8—"The X-ray Diagnosis and Treatment of Fractures," by J. P. Runyan.

February 22—"Intestinal Intoxication," by H. H. Kirby.

March 8—"Modern Therapeutics," by C. E. Witt.

March 22—"Trachoma," by C. N. Pate.

April 5—"A Case of Intestinal Obstruction," by R. L. Maxwell.

JOHNSON COUNTY.

The Johnson County Medical Society met in Clarksville, January 4, 1915. The following members were present: Dr. S. M. Graves, president; Drs. Annie Hays, J. S. Kolb, E. H. Hunt, W. R. Hunt, J. F. Bradley, T. S. Burgess, R. N. Manly, L. C. Gray, G. L. Hardgraves, and M. E. Burgess. The visiting doctors were: Drs. Thomas Douglass, Ozark; William A. Snodgrass, Little Rock, Councilor for the Eighth District; W. F. Smith, Little Rock; R. L. Smith, Russellville; Charles S. Holt, Fort Smith.

The afternoon meeting was held in Dr. Annie Hays' office. Society was called to order at 3:30 p. m. by the president, Dr. S. M. Graves. After the routine business, Dr. W. F. Smith read an interesting paper on "Injuries to the Knee Joint and the Prevention of Shock Following Such Injuries." His paper was freely discussed, after which the report of a number of clinical cases was had and a free discussion followed each one.

At 7:30 p. m. the society and its guests assembled at the Arlington Hotel, where a

sumptuous banquet had been prepared. Dr. W. R. Hunt acted as toastmaster and all present will testify to the fact that he acquitted himself well on this occasion. All agree that he is a prince in this line.

FRANKLIN COUNTY.

(Reported by Thos. Douglass, Sec'y.)

The Franklin County Medical Society had a very enjoyable meeting and a banquet on December 1st. Although the rain poured down all day and night, we had six members and several visitors with us. But for the rain we should have had a full attendance. We had with us Dr. O. M. Bourland of Van Buren, Dr. H. Moulton and Dr. J. A. Foltz of Fort Smith, Dr. Wigley of Mulberry, Dr. Earle Hunt of Clarksville, Dr. T. S. Burgess of Russellville, and Dr. T. M. Fly of Little Rock. These visitors added very greatly to the pleasure and profit of the meeting. We had an interesting case of glioma of the retina, which was examined and discussed by Dr. Moulton.

For the new year, Dr. G. D. Warren was elected president; Dr. E. W. Blackburn, vice president, and Dr. Thos. Douglass, secretary.

Twenty-five members paid dues last year. We know of only three physicians eligible to membership in the county who are not members. Only six failed to pay dues last year.

Have you paid your state and county medical society's dues for 1915? If not, please do so at once, in order to avoid being reported to the State Society and the American Medical Association as delinquent, and having your name dropped from the official list soon to be published.

Book Reviews.

THE CLINICS OF JOHN B. MURPHY, M. D., AT MERCY HOSPITAL, CHICAGO.—Volume III, Number 6. December, 1914. Published bi-monthly by W. B. Saunders Company, Philadelphia.

This volume gives a number of splendid views of the new offices which Dr. Murphy and his staff now occupy. Photographs of Dr. Murphy, Dr. Mix and Dr. Tiven are also shown.

The surgical subjects considered are as follows:

Murphy's Clinical Talks on Surgical and General Diagnosis; Autosensitized Autogenous Vaccines; Impacted Fracture of External Tuberosity of Tibia; Sarcoma of the

Right Tibia; Exostosis of Interarticular Surface of the Upper End of Left Tibia; Multiple Metastatic Arthritides; Cartilaginous Exostosis of Left Humerus; Bilateral Tuberculous Epididymitis with Abscess Formation; Gummatous Tumor of the Testicle; Perforating Duodenal Ulcer Fixed to the Anterior Abdominal Wall; Retroperitoneal Sarcoma of the Upper Abdomen.

The book closes with the index to Volume III.

LOCAL AND REGIONAL ANESTHESIA INCLUDING ANALGESIA.—By Carroll W. Allen, M. D., of Tulane University, New Orleans, with an introduction by Rudolph Matas, M. D., of Tulane University, New Orleans. Octavo of 625 pages, with 225 illustrations. W. B. Saunders Company, Philadelphia, 1914. Cloth, \$6.00 net; half morocco, \$7.50 net.

This excellent work considers local and regional anesthesia with chapters on spinal, epidural, paravertebral and parasacral analgesia, and on other applications of local and regional anesthesia to the surgery of the eye, ear, nose and throat, and to dental practice.

An introduction by Dr. Rudolph Matas constitutes the first six pages. The book is gratefully dedicated to Dr. Matas, one of the pioneers in the field of local and regional anesthesia, under whose guidance the author was initiated into surgery, whose example and friendship prompted the conception of this work, and whose teachings and writings have contributed many pages of the text.

ABDOMINAL OPERATIONS.—By Sir Berkeley Moynihan, M. S. (London), F. R. C. S., Leeds, England. Third edition, entirely reset and enlarged. Two octavo volumes totaling 980 pages, with 371 illustrations, five in colors. W. B. Saunders Company, Philadelphia, 1914. Cloth, \$10.00 net; half morocco, \$13.00 net.

This edition has been almost entirely rewritten with additional pages and new illustrations.

Among the general considerations the author says "that no preparation will sterilize a skin so efficiently as Harrington's solution." Its composition is as follows: Commercial alcohol, 640 c.c.; hydrochloric acid, pure, 60 c.c.; perchloride of mercury, .8 gram; water, 300 c.c.

As to the choice of anesthetic he says that the procedure which Crile has advocated for the production of the shockless operation by anoci-association is the one he now adopts.

Dr. Moynihan has kept strictly to the original purpose of the book, and describes in detail only those operations and methods which are practiced by himself.

"THE TONSILS—FAUCIAL, LINGUAL AND PHARYNGEAL, WITH SOME ACCOUNT OF THE POSTERIOR AND LATERAL PHARYNGEAL NODULES."—By Harry A. Barnes, M. D., Instructor in Laryngology, Harvard Medical School. 168 pages, with 39 original illustrations. Published by C. V. Mosby Company, St. Louis, Mo. Price, \$3.00.

In this book the author presents in concise form the facts concerning the lymphoid tissues of the throat, and makes these facts the basis of any theories advanced.

The first chapter depicts the general nature of lymphoid tissue. The next four chapters describe the development, anatomy, histology, function and the general pathology and bacteriology of the tonsils. The remaining chapters are devoted to the diseases and the surgery of the tonsils, and the complications and sequelae of operation of the tonsils.

MEDICAL JURISPRUDENCE—A STATEMENT OF THE LAW OF FORENSIC MEDICINE.—By Elmer D. Brothers, B. S., LL. B., member of the Chicago bar; lecturer on Jurisprudence in the Medical and Dental Department of the University of Illinois, and in John Marshall Law School. Published by C. V. Mosby Company, St. Louis, Mo. Price, \$3.00.

"Medical jurisprudence is defined as a science which treats of the application of medical and surgical knowledge and skill to the principles and administration of the law. It comprises all legal subjects which have a medical aspect."

The readers of this book will find that the author presents a brief yet complete and accurate explanation of the fundamental principles of medical jurisprudence.

THE NEW YORK TRIBUNE'S CAMPAIGN.

"These be parlous times for the medical faker. The New York Tribune recently entered the lists against the quack and the fraudulent 'patent medicine' with an educational campaign that promises to have far-reaching effects. The motto of the Tribune is: 'First to Last the Truth: News, Editorials, Advertisements.' Naturally, living up to such a motto bars practically all medical advertising. But the Tribune has gone further. A few weeks ago," says The Journal of the American Medical Association, "it announced that it would guarantee its readers against loss or dissatisfaction through the purchase of any wares advertised in its columns. Such a step on the part of a daily newspaper is, we believe, unique. A few high-class magazines give their readers this

protection, but, so far as we know, no newspaper has ever assumed such a task as that undertaken by the New York paper. As the Tribune says:

"'Out of our armory of defences goes the comfortable old doctrine of *caveat emptor*, that favorite refuge of the newspaper whose hands are full of not over-clean advertising revenue. *Caveat emptor* is that strict letter of the law, but we shall never retreat behind it. In practice it means that the reader takes care while the newspaper takes the money. Under our system he does not have to take care. We will do the taking care for him.'

"Should newspapers over the country, generally, take this stand, it would sound the death knell of the fraudulent 'patent medicine' industry. Imagine, if possible, a newspaper guaranteeing its readers against loss from taking 'Pulmonol' or 'Eckman's Alterative' for consumption, from taking 'Swamp Root' or 'Doane's Kidney Pills' for Bright's disease, from taking 'Wine of Cardui' or 'Lydia Pinkham's' for 'female trouble,' from taking Coutant's alleged cure for deafness, from using Plapoa Pads for rupture, from taking any of the thousand and one wickedly exploited cures for cancer—imagine a newspaper that guaranteed its readers against 'loss or dissatisfaction' carrying such advertisements! It isn't conceivable that any paper that had the interest of its readers sufficiently at heart to take the stand that the Tribune has, could, in the nature of the case, accept advertisements from fraudulent 'patent medicine' concerns and quacks. Yet, as a normal principle, the new standard taken by the New York Tribune, while so far in advance of the procession, is merely one of simple, elemental honesty. It is the stand that is taken by every honest man in business. The rapid change that is now taking place in the advertising world makes one optimistic. We believe before the present decade has passed, the position taken by the Tribune will be accepted as a matter of course by the great bulk of decent newspapers throughout the country. In the meantime, every right-minded citizen should throw the power of his influence behind those publications that are waging war against frauds and leading in the fight against those powers of evil that menace both public health and public morals. More power to the pen of the New York Tribune."

OFFICERS OF THE AMERICAN MEDICAL ASSOCIATION, 1914-1915.

Next Annual Session, San Francisco, June 21-25, 1915.

President—Victor C. Vaughan, Ann Arbor, Mich.
President-Elect—William L. Rodman, Philadelphia.
First Vice President—D. S. Fairchild, Clinton, Iowa.
Second Vice President—Wisner R. Townsend, New York.
Third Vice President—Alice Hamilton, Chicago.
Fourth Vice President—William Edgar Darnall, Atlantic City, N. J.
Secretary—Alexander R. Craig, 535 N. Dearborn Street, Chicago.
Treasurer—William Allen Pusey, Chicago.
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Board of Trustees—M. L. Harris, Secretary, Chicago, 1915; W. T. Councilman, Chairman, Boston, 1915; Thomas McDavitt, St. Paul, 1915; W. W. Grant, Denver, 1916; Frank J. Lutz, St. Louis, 1916; Oscar Dowling, Shreveport, La., 1916; Philip Marvey, Atlantic City, 1917; Philip Mills Jones, San Francisco, 1917; W. T. Sarles, Sparta, Wis., 1917.
Judicial Council—James E. Moore, Minneapolis, Minn., 1915; Hubert Work, Pueblo, Colo., 1916; George W. Guthrie, Wilkes-Barre, Pa., 1917; A. B. Cooke, Los Angeles, Cal., 1918; Alexander Lambert, Chairman, New York, 1919; Alexander R. Craig, Secretary, 535 N. Dearborn Street, Chicago.

Council on Health and Public Instruction—W. C. Woodward, Washington, D. C., 1915; H. B. Favill, Chairman, Chicago, 1916; Walter B. Cannon, Boston, 1917; W. S. Rankin, Raleigh, N. C., 1918; H. M. Bracken, Minneapolis, 1919; Frederick R. Green, Secretary, 535 N. Dearborn Street, Chicago.

Council on Medical Education—George Dock, St. Louis, 1915; W. D. Haggard, Nashville, Tenn., 1916; James W. Holland, Philadelphia, 1917; H. D. Arnold, Boston, 1918; Arthur D. Bevan, Chicago, 1919; N. P. Colwell, Secretary, 535 N. Dearborn Street, Chicago.

Council on Pharmacy and Chemistry—F. G. Novy, Ann Arbor, Mich., 1915; George H. Simmons, Chairman, Chicago, 1915; New Haven, Conn., 1916; Torald Sollmann, Cleveland, Ohio, 1916; W. I. Wilbert, Washington, D. C., 1916; Reid Hunt, Boston, Mass., 1917; J. H. Long, Chicago, 1917; Julius Stieglitz, Chicago, 1917; J. A. Capps, Chicago, 1918; David L. Edsall, Boston, 1918; R. A. Hatcher, New York City, 1918; H. W. Wiley, Washington, D. C., 1915; O. T. Osborne, John Howland, Baltimore, 1919; Henry Kramer, Philadelphia, 1919; C. L. Alsberg, Washington, D. C., 1919; W. A. Puckner, Secretary, 535 N. Dearborn Street, Chicago.

OFFICERS OF SECTIONS, 1914-1915.

Practice of Medicine—Chairman, Thomas McCrae, Philadelphia; Vice Chairman, John L. Dawson, Charleston, S. C.; Secretary, Roger S. Morris, Clifton Springs, N. Y.

Surgery, General and Abdominal—Chairman, Charles H. Peck, New York; Vice Chairman, Wallace I. Terry, New York; Secretary, E. S. Judd, Rochester, Minn.

Obstetrics, Gynecology and Abdominal Surgery—Chairman, Thomas S. Cullen, Baltimore, Md.; Vice Chairman, George B. Somers, San Francisco; Secretary, Brooke M. Anspach, 119 S. Twentieth Street, Philadelphia.

Ophthalmology—Chairman, E. C. Ellett, Memphis; Vice Chairman, John A. Donovan, Butte, Mont.; Secretary, George S. Derby, 7 Hereford Street, Boston.

Laryngology, Otology and Rhinology—Chairman, Norval H. Pierce, Chicago; Vice Chairman, Ross H. Skillern, Philadelphia; Secretary, Francis P. Emerson, 520 Commonwealth Avenue, Boston.

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Pharmacology and Therapeutics—Chairman, R. A. Hatcher, New York; Vice Chairman, J. R. Arneill, Denver; Secretary, W. I. Wilbert, Twenty-fifth and E Streets, N. W., Washington, D. C.

Pathology and Physiology—Chairman, A. J. Carlson, Chicago; Vice Chairman, L. B. Wilson, Rochester, Minn.; Secretary, F. P. Gay, University of California, Berkeley, Cal.

Stomatology—Chairman, F. B. Moorehead, Chicago; Vice Chairman, Arthur D. Black, Chicago; Secretary, Eugene S. Talbot, 31 N. State Street, Chicago.

Nervous and Mental Diseases—Chairman, F. X. Dercum, Philadelphia; Vice Chairman, H. G. Brainerd, Los Angeles; Secretary, G. A. Moleen, Mack Building, Denver.

Dermatology—Chairman, Howard Fox, New York; Vice Chairman, A. Ravogli, Cincinnati; Secretary, H. H. Hazen, The Rochambeau, Washington, D. C.

Preventive Medicine and Public Health—Chairman, C. Hampson Jones, Baltimore; Vice Chairman, Eugene R. Kelley, Seattle; Secretary, O. P. Geier, Ortiz Building, Cincinnati.

Genito-Urinary Diseases—Chairman, Granville MacGowen, Los Angeles; Vice Chairman, Edward Martin, Philadelphia; Secretary, Louis E. Schmidt, 5 S. Wabash Avenue, Chicago.

Hospitals—Chairman, Minford H. Smith, Baltimore; Secretary, John A. Hornsby, Tower Building, Chicago.

Orthopedic Surgery—Chairman, Nathaniel Allison, St. Louis; Vice Chairman, Russell A. Hibbs, New York; Secretary, Emil S. Geist, 614 Syndicate Building, Minneapolis.

OFFICERS OF THE ARKANSAS MEDICAL SOCIETY, 1914-1915.

Next Annual Session, Little Rock, May, 1915.

President—St. Cloud Cooper, Fort Smith.
First Vice President—G. A. Warren, Black Rock.
Second Vice President—R. L. Hilton, El Dorado.
Third Vice President—R. S. Rice, Rogers.
Treasurer—William R. Bathurst, Little Rock.
Secretary—C. P. Meriwether, Little Rock.
Committee on Scientific Program—William R. Bathurst, Chairman, Little Rock; Robert Caldwell, Little Rock; C. P. Meriwether, Little Rock (ex officio).
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Committee, Board of Visitors to the Medical Department, University of Arkansas—R. C. Dorr, Chairman, Batesville; L. J. Kosminsky, Texarkana; R. A. Hilton, El Dorado.

Committee on Necrology—H. H. Niehuss, Chairman, El Dorado; J. T. Clegg, Siloam Springs; R. H. T. Mann, Texarkana.

Committee on Trained Nurses—W. A. Snodgrass, Chairman, Little Rock; Leonard R. Ellis, Hot Springs; Earle H. Hunt, Clarksville.

Committee on Health and Public Instruction—T. B. Bradford, Chairman, Cotton Plant; M. S. Dibrell, Van Buren; J. H. Southard, Fort Smith.

Committee on Sanitation and Public Hygiene—Leonidas Kirby, Chairman, Harrison; Edwin F. Ellis, Fayetteville; Thomas Douglass, Ozark.

Committee on Memorial Tablet in Memory of Dr. John S. Shibley—L. P. Gibson, Chairman, Little Rock; J. B. Eberle, Fort Smith; A. E. Hardin, Fort Smith; Frank Vinsonhaler, Little Rock; M. D. Ogden, Little Rock.

COUNCILOR DISTRICTS AND COUNCILORS, 1914-1915.

First Councilor District—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph counties. Councilor, M. C. Hughey, Rector. Term of office expires 1915.

Second Councilor District—Cleburne, Fulton, Independence, Izard, Jackson, Sharp and White counties. Councilor, L. T. Evans, Barren Fork. Term of office expires 1916.

Third Councilor District—Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis and Woodruff counties. Councilor, T. B. Bradford, Cotton Plant. Term of office expires 1915.

Fourth Councilor District—Ashley, Bradley, Chicot, Cleveland, Desha, Drew, Jefferson and Lincoln counties. Councilor, E. C. McMullen, Pine Bluff. Term of office expires 1916.

Fifth Councilor District—Calhoun, Columbia, Dallas, Lafayette, Ouachita and Union counties. Councilor, J. S. Rinehart, Camden. Term of office expires 1915.

Sixth Councilor District—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier counties. Councilor, C. A. Archer, DeQueen. Term of office expires 1916.

Seventh Councilor District—Clark, Garland, Hot Spring, Montgomery, Saline, Scott and Grant counties. Councilor, J. F. Rowland, Hot Springs. Term of office expires 1915.

Eighth Councilor District—Conway, Johnson, Faulkner, Perry, Pulaski, Yell and Pope counties. Councilor, W. A. Snodgrass, Chairman, Little Rock. Term of office expires 1916.

Ninth Councilor District—Baxter, Boone, Carroll, Marion, Newton, Searcy, Stone and Van Buren counties. Councilor, A. M. Hathcock, Harrison. Term of office expires 1915.

Tenth Councilor District—Benton, Crawford, Franklin, Logan, Sebastian, Madison and Washington counties. Councilor, J. T. Clegg, Siloam Springs. Term of office expires 1916.

Delegates to American Medical Association—Robert Caldwell, Little Rock; W. V. Laws, Hot Springs. Alternate—J. T. Clegg, Siloam Springs.

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UNIVERSITY OF TENNESSEE



COLLEGE OF MEDICINE, SCHOOL OF PHARMACY AND COLLEGE OF DENTISTRY, MEMPHIS

Across the street from Lindsley Hall is the Memphis City Hospital. Capacity 275 beds, under Clinical control of this college.

Alongside is to be the Municipal Hospital for Contagious Diseases. All autopsies held in city hospital—40 to 60 per year—in the presence of and with the assistance of students of Pathology.

Baptist Memorial Hospital, capacity 150 beds, 40 beds under control of this College.

150 feet south is site of new Methodist Hospital soon to be built. All hospitals, including St. Joseph, maintain more than 350 free beds available for Clinical instruction.

Lindsley Hall, four stories, 34 halls and rooms; office of Registrar-Bursar, General Library and Museum, Organic and Physiological Chemistry, half of Free Dispensary, Practical Pharmacy Laboratory, one entire floor, and senior and junior lecture rooms.

Eve Hall, new four-story Laboratory building completed in 1912, three large laboratories and 21 rooms, office of Dean, the all-time Professors of Pathology and Clinical Microscopy, Bacteriology, Physiology and Pharmacology. Three departmental libraries, three research laboratories and 12 rooms for Free Dispensary instruction.

Rogers Hall, across Forrest Park from Eve Hall and Lindsley Hall, four stories, 37 halls and rooms, including Auditorium and gallery seating 1000 persons, laboratories of Anatomy, Organic Chemistry, Histology and Embryology. The College of Dentistry also has ample space in this large building.

Most of the first year medical subjects are taught here.

Four medical colleges united. Ten all-time teachers. Twelve separate well-equipped laboratories for fundamental instruction besides several research laboratories. Twenty-two free dispensary rooms specially equipped for each department. More than 350 free beds in hospitals.

Three new college buildings. More than one hundred in combined faculties of the three Memphis departments.

Hereafter one year of college work in Physics, Chemistry, Biology and French or German will be required for admission to the first year of the medical course proper.

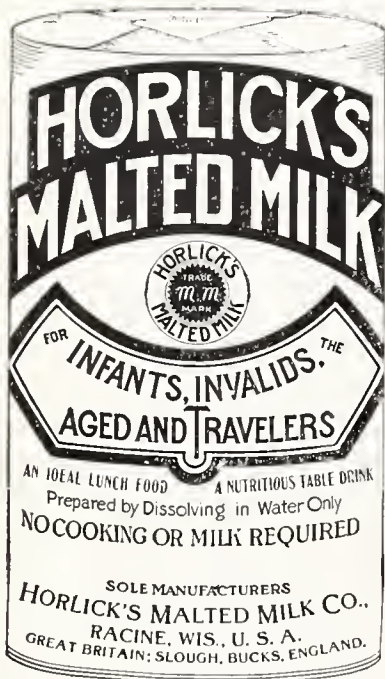
Beginning September 21, 1914, both at Knoxville and Memphis, a preliminary year in Physics, Chemistry, Biology and French or German will be offered. The tuition charge for said course at Memphis will be \$100.00. At Knoxville the same fee, \$100.00, will be charged to non-residents of Tennessee. To residents of Tennessee taking this course at Knoxville the tuition will be free, the State paying their railroad fare from their homes to the University and return.

Registration days all Memphis departments Sept. 15th, to 21st.

FOR COPIES OF THE UNIVERSITY OF TENNESSEE BULLETIN, ADDRESS THE REGISTRAR-BURSAR OR THE DEAN OF THAT DEPARTMENT ABOUT WHICH INFORMATION IS DESIRED

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VOL. XI.

LITTLE ROCK, ARK., FEBRUARY, 1915

No. 9

Original Articles.

MUCOUS COLITIS.*

By Thomas Douglass, M. D.,
Ozark.

Mucous colitis is variously described by different authors. Some speak of it as the "so-called mucous colitis." E. H. Goodman says: "It is no doubt true that in most cases mucous colitis is a symptom and not a disease." Some regard it as a symptom of neurasthenia. It seems more likely to be a cause. Possibly most cases of mucous colitis are neurasthenic, but there are many cases that show no other evidences of it. I believe this condition is really a phase of chronic constipation and is a direct result of it.

The symptoms are quite characteristic: Quantities of gelatinous tenacious mucous, in shreds, tape-like pieces, membranous portions, casts of the bowels are passed at irregular intervals, preceded by abdominal pain. These shreds of mucous much resemble intestinal parasites, although distinguished without difficulty. One of my patients was sure she was passing worms. Nervous symptoms, severe depression, melancholy and irritability are uniformly seen. Severe attacks of neuralgia occur, hard to relieve, difficult to cure, and liable to recur at any time. Von Noorden calls special attention to the cases of polyneuritis resulting in some of these cases, and says it is elective as affecting the sensory side of the nervous system only. One of my patients was so affected. She had a very severe intercostal neuralgia quite troublesome to relieve, very persistent and lasting a long time; also general extreme hyperesthesia. This patient was neurasthenic, but not hysterical. I

think with regard to neurasthenia a distinction should be made, namely, between a primary and a secondary affection. In the primary form the patient is born short of nervous energy and breaks down when the burdens of life become too much for his capital. A secondary neurasthenia may be found in many patients sick from any cause for a long time, or may be developed rather quickly by a severe infection or injury. One afflicted with mucous colitis is very likely to become neurasthenic. It is quite possible for a neurasthenic to have chronic constipation and finally a mucous colitis. With regard to the sensory neuritis above mentioned, all the articles I could find except that of Von Noorden were extremely unsatisfactory. Almost all polyneuritis was referred to the motor nerves. As in my case there was absolutely no involvement of the motor nerves, I was greatly puzzled for a long time. Appetite is often excellent and is generally good. Stengel says that the appetite is poor and capricious, but this has not been my experience. In one case I noted a desire for unusual articles of diet such as starch. The patient could hardly pass the starch-box without eating a piece, and said she could eat the whole box. In two cases I have seen there was obstinate constipation requiring the constant use of purgatives or enemas. In two others there was only a moderate degree of coprosthesis, with daily, almost normal though insufficient evacuations. One patient frequently has a cracked and fissured tongue, which gets better and worse and causes much annoyance. One has had insomnia for years. She also had diabetes for a long time, dating from some illness of childhood, and was in many respects typically neurasthenic. Three of the cases are troubled with rheumatism like pains in joints and muscles. They are frequently stiff in the morning, which wears off after some moving around. I think much of the

*Read before the Section on Practice of Medicine of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

so-called chronic rheumatism is really caused by the intestinal autointoxication of mucous colitis.

It should be remembered that mucous is not constantly found in the stools. There may be regular movements without any mucous, but an enema usually brings a quantity. Sometimes there will be severe pain in the left lower abdomen, which is relieved by an enema or purgative, to some extent. There is frequently soreness or distress in this region. Many patients are thin and tend to become more so, and their vitality is lowered so that they readily acquire ordinary affections. The characteristic condition in these cases is not the acutely inflamed mucosa with dysenteric passages. There is nevertheless a subacute inflammatory condition of the mucous membrane, easily seen with the proctoscope and showing dark red and streaked tenacious shreds of mucous. Von Noorden speaks of occasional temperature. In none of my cases has there been an elevation of temperature.

The disease occurs in middle life and more frequently in women. One of my most troublesome cases, however, is a man, between thirty and forty. As stated above, I believe it to be a phase of and a direct result of chronic constipation. I think there is no doubt of its being a distinct disease entity. It is essentially chronic and persistent, and I have never yet heard of a satisfactory treatment. Although much has been written on the subject of chronic constipation, I do not believe the subject has yet had adequate attention. It is one of the most frequent of human disorders. The sale of pills, liver medicine and various other kinds of purgatives constitute a large part of the patent medicine business. One-half the men and nearly all the women are sufferers, more or less, from this affection. I am speaking of a primary idiaopathic disorder, not mechanical constipation from kinks, bands, appendicitis, enteroptosis, stomach trouble and cholecistitis, but that which commonly begins in children or young folks and is generally attributed to two causes, namely, improper diet and a neglect of the daily evacuation. The fact that so many people are effected ought to excite our attention. Why should this be so? I think there is here a hint as to the real etiology of chronic constipation. Is it not surprising that the young human animal is so commonly constipated? Other young ani-

mals are not so affected. Neglect of the daily evacuation from modesty or inconvenience has been very generally alleged, but I believe this factor has been very greatly overestimated. Other young animals are not troubled with modesty, of course, but their daily evacuations, usually multiple instead of the one thought to be sufficient with the human animal, require not the slightest attention. The machinery is entirely automatic.

I heard Dr. Kellogg of Battle Creek say that the bowels ought to move, not once, but two or three times a day. The singular fact here to be observed is the very greatly decreased irritability of the colon. In other young animals the desire for evacuation is imperious and irresistible, and it should be so in the human. I think an inquiry into the cause of this decreased colonic irritability in the young, who are otherwise in a normal state of health, will reveal the great etiologic factors back of the whole trouble. The problem is one of evolution. The human alimentary canal is the result of the adaptation of the organism to a diet largely vegetable and unconcentrated, containing a large amount of residue, somewhat similar to that of the horse and the ox. In the evolutionary process the human alimentary canal has become much more adapted to a somewhat concentrated form of diet than in these animals. But at present the human race is suffering in the effort at further adaptation. The present problem is to get rid of an excessive and now superfluous large intestine. Consider the steady dietetic tendency of the last few hundreds of years. It is constantly toward more concentrated forms of nourishment. White flour bread, sugar, eggs, butter, beyond which there can hardly be further concentration, represent the most common, the cheapest and the almost universal articles of diet. Processes of manufacture and methods of marketing have so cheapened them that a much larger number of people now use them. Of course, this remark does not exactly fit the more recent past, when the prices of everything have been soaring aloft; but this does not affect the truth of the application I am making. Sugar has become abundant and cheap within the memory of those now living. White bolted flour is much more generally used. Now many families who used to have flour bread once a day now eat flour bread almost exclusively. To these concentrated forms of nourishment may be added

the use of milk and meat, equally concentrated, and leaving little residue for the colon to take care of. And when the almost universal use of these foods, representing the highest percentage of nutritive elements and the lowest percentage of residue, is considered, it is clearly seen why the large and long colon is now superfluous and is suffering from disuse, and the evolutionary problem of the organism is to modify it to the very greatly modified food supply.

The second great etiologic factor in producing chronic constipation is the diminished use of the muscular system. The constant effort of the race is to get along with less physical exertion. The evil effects are well known and have been recognized for a long time. To combat them the gymnasium has arrived and many systems of physical exercise have been brought forward. More and more people lead sedentary lives. Chronic constipation is not nearly so common with people living an active outdoor life. Other not unimportant factors in the etiology of chronic constipation are: the method of food preparation and food adulteration. Three-fourths of the average cooks and housewives do not know how to cook the commonest vegetables or meats, nor can they make as good bread as is obtainable at a bakery. And the average bakery bread is tasteless and unsatisfactory as an article of diet. The fault is not in the white bolted flour. Whole wheat products are not any better. Scientific investigations have not shown the superiority of whole wheat over bolted flour. The trouble is altogether in the method of making bread. The attention paid to domestic science in the schools and the increasing recognition of its importance makes the prospect for the future more hopeful. I believe in the higher education of woman; she needs and deserves it as much as the man; I believe in her complete emancipation, including the right to vote; but the woman, whatever her intellectual attainments with regard to the calculus or the stars, who knows how to cook and is neither afraid, ashamed nor too indolent to attend to it, is the one to whom we shall look for most important aid in diminishing the daily insults to the alimentary canal.

The importance of the subject of food adulteration in connection with the present subject may be taken for granted.

The course of mucous colitis is chronic and persistent and tends to grow worse. It is not

usually cured, but may be greatly benefited by a proper course of treatment. Patients in private practice are difficult to control and keep on the strict regimen necessary. Sanatorium treatment is preferable. So far as I know, no satisfactory treatment has been suggested. Most writers are agreed that drugs are of little importance. Purgatives usually do harm and laxatives do little good. But how you are to avoid the use of them I do not know. Some patients never have a bowel movement without a purgative or an enema. A daily, complete evacuation is quite necessary, and until the condition can be improved to the extent that a spontaneous movement occurs, some laxatives must be used. For this purpose there is none entirely satisfactory. The one most widely commended is cascara, but it is far from satisfactory. Patients soon get to taking teaspoonful doses of the aromatic fluid extract with insufficient results. I have not found agar-agar of much use, neither phenolphthalein. I believe the injurious effects of the enema have been greatly overestimated. I doubt very much whether any serious dilatation of the colon would ever occur from its prolonged use. It is often a great help for temporary relief. In its simplest form it is efficient. X-ray pictures have shown the impossibility of passing a rectal tube above the sigmoid. High colonic irrigation can often be secured by the short tube and antiperistalsis, so that in many cases the colon is completely emptied. However, the enema does not cure the condition. It will fail to establish the normal irritability. The same thing is somewhat more effectively accomplished by means of irrigation through the appendix. There are, of course, many objections to an appendicostomy. The treatment must be kept up for a year or more and the opening in the left side is disagreeable and not without danger. Von Noorden says that the treatment is mainly dietetic, but that he is not able to prescribe a course for every case. He leaves something to be desired in his discussion of the subject. What he does say is important. He says that each case must be studied for itself. Sometimes an exclusive milk diet for a while is best, or a modification of milk such as sour milk, yoghurt, keffir, etc. It will be remembered how Metchnikoff has recently proposed lactic acid and buttermilk in restoring a normal intestinal flora. In some cases Von Noorden found it beneficial to keep the patient

on nothing but a solution of sugar for several days. In some cases animal diet deserves the preference. He enunciated the important principle that the patients are not to be kept on the soft, easily digested diet, but that he is to be trained to digest the ordinary varied diet. About three weeks is sufficient time to find the proper diet; a much longer time is required to accustom him to a varied diet, and a cure is not effected until he can practically digest anything and spontaneously empty the colon completely each day. Several weeks or months elapse before the changes in the nervous system disappear. This retarded convalescence is exactly the same, he says, as in other chronic intoxications such as nicotine poisoning. In the cases I have seen, no such excellent results have been obtained. One patient, about to die, was greatly benefited by a six months' stay at the Battle Creek Sanitarium. She is not cured, however, as she is still obstinately constipated. Nothing that has been done for another patient has benefited him much. He is still obstinately constipated, has abdominal soreness on the left side about the point which Von Noorden calls the "S" point corresponding to McBurney's point on the right, so called because it indicates a disordered sigmoid. This patient passes a lot of mucous after an enema, is troubled with joint and muscular pains and stiffness, from which he is entirely free at times. Salicylates and aspirin give him no relief, and he has been afflicted for two years.

In this, as in other diseases, prevention is better than cure. The time to begin to prevent is with children. People should be taught to carry out the Battle Creek idea in their homes. Since we cannot (at least, not quickly without Lane's operation) modify the colon to our present food supply, we must make the food supply fit the colon. This is the essence of the Battle Creek idea—a more extended use in the diet of vegetables, particularly the green vegetables, fruits and nuts. It is often difficult with children and young people to get them to use these articles of diet freely. I believe a proper diet in childhood, persisted in, will make chronic constipation impossible. We should encourage a proper supply of these articles. It is not easy to obtain them at all times of the year, but it should be.

By far the most important measure yet devised for the relief of these patients is the

operation of ileosigmoidotomy of Arbuthnot Lane. It seems to be, in the light of the etiology of this disorder to be a perfectly rational procedure and to be fully justified in those cases that are otherwise condemned to a life of invalidism. By means of this operation the colon is short-circuited, the useless part eliminated with quite brilliant results. The relief is marked and immediate. Results are quickly obtained that otherwise require at least a year's treatment, if obtained at all. I do not understand why this operation has not been more favorably received in America, unless it is due to a general failure to recognize the importance of the affection. I venture the prediction that Lane's operation will be much more generally used in the future. Aside from surgery, hydrotherapeutic and general hygienic measures are helpful, but the cure is mainly dietetic and requires long and careful attention.

DISCUSSION.

Dr. T. M. Fly (Little Rock): I would like to call the attention of the doctors to the fact that a great many of these cases of so-called neurasthenia are the direct result of the effects of intestinal parasites. I would like for this society to remember that that is one thing that ought to be looked into in this condition.

Dr. R. C. Dorr (Batesville): I just want to make a remark. I don't see any difference in treating mucous colitis from any other form of pain or any other disease. It all depends on being able to remove the cause. And the reason we have so many treatments for mucous colitis or constipation is because we don't know the cause, and treat symptoms too much. If a man has hemorrhoids or fissures or ulcers or fistulas, it will tend to constipate him. They should be removed. And wherever you can hunt out the cause, whatever that may be, it should be removed. After that you should give him just the same treatment that we give any animal that gets run down. That is, he must be put out in the open air; he wants to get food that leaves a residue. He wants to get pure water, and wants to drink plenty of it. He wants the habit to go to the stool when he needs to. I think one reason that the animal does not constipate as badly as a human being is because he is kept on watery food, very largely water, 72 per cent, and because he always answers the call when he has to, which the human family does not do. I think if we are treated that way you will find good deal better results. He said 75 or 80 per cent of the water drunk is taken up in the large bowel. I don't know whether that is so or not, but he said so. We have to accept him until we can disprove him or somebody else disproves him. If that is so, that's our way of keeping these stools liquid so that it can pass out. If you drink plenty of water, you won't need so much put in the other end, and if you take it in the natural way it is easier to get them to take it.

Dr. L. Kirby (Harrison): I would like to ask Dr. Dorr a question. I understand that primitive people are very much prone to drinking beer and whiskey and everything else they can get. They live in communities where the water is naturally pure. Why is it they have such an appetite for those things and

take to it readily when they are supplied with natural water in any quantity they desire?

Dr. Dorr: Because the water was polluted with their own excreta and it destroyed them. That's the reason.

Dr. Kirby: I didn't understand it is polluted.

Dr. H. H. Kirby (Little Rock): It seems to me that we have left out a phase of the discussion that would possibly lend some aid to some of the causes for the symptoms such as have been given in the paper. We have left out from the diagnosis the differential blood count. In my practice I have made it a point in this class of cases to make a differential blood count, and in every case where there was a marked evidence especially of neurasthenical symptoms, I have always found an excess of mononuclear leucocytes, the large ones especially. Now, that must indicate that there is some absorptive condition going on of products from the intestinal canal, or is the result of some disorder of the internal secretions; whether those internal secretions come from the stomach, pancreas or other glands associated, we are unable to say. An examination of the urine has also been carefully tested in these cases, and in every one of them we have been able to show unoxidized products such as skatol, indol and the xanthin bases. We know, too, that these products are absorbed mostly from the first part of the large intestine, so that it is reasonable to suppose that the operation such as is devised by Dr. Lane of Guy's Hospital should relieve in a way the absorption of these substances. Experiments made with these products have shown that they produce a heightened arterial tension and are erectomotors. We know that in most of these cases, even though they showed a marked tendency to rapid exhaustion, that they are always on tension. So that it is reasonable to surmise that the absorption of these products, which normally should be thrown off through the intestinal canal, bring about many of the neurasthenical symptoms displayed in these cases. So that, dealing with the subject along that line, it seems to me that, to alleviate as much as possible the decomposition of the products, proteins and carbohydrates would relieve to a great extent this condition. That there is delayed motility of intestinal contents has been demonstrated, and in this we have, by examination of feces, been able to show that the digestion of the products was incomplete. So again we must conclude, disordered secretion, and an effort on the part of Nature to perform her duty as the cause, or a lack of stimulation to bring about peristalsis. One might say it is an exhausted state, but correction of other phases in these cases has brought about a return to the normal.

The doctor has stated that Von Noorden states that there are pains in the region corresponding to the appendiceal area. If he has gone into it thoroughly, he will find that it is the sympathetic ganglion of the side that is affected, and not the appendix, and that you can find in nearly every case the opposite condition; that is, the ganglion on the opposite side of the umbilicus is likewise affected. And, if he will take care to trace the splanchnic system, the sympathetic cord supply from which a large part of these fibers arise, he will find the whole area, especially the sympathetic cord, gives that same tenderness. Now, whether that is due to the anemia as a result of the absorption of the products from the intestines or disturbed internal secretion, that we have yet to decide. The mucous is an effort on the part of Nature to prevent absorption.

Dr. H. Thibault (Scott): The essayist made one statement that you often hear made by medical men: that is, that wild or domesticated animals do not

have such and such diseases. This statement has been made in regard to perineal lacerations as well as intestinal diseases, and when it was demonstrated that the horse, the dog and the hog all had perineal tears, these men immediately assured us that "these are domesticated or civilized animals and have acquired the weaknesses of their masters." As a matter of fact, mucous colitis is a common disease of the lower animals, both domesticated and wild. Among laboratory animals and dogs kept in close confinement it is exceedingly common. A typical long-standing mucous colitis with slimy stools and loss of flesh is probably, next to intestinal worms, the commonest disease of the dog. Sometimes when you turn him loose and give him wide range, he cures his own trouble. Generally he does this by first eating some coarse grass, which he vomits; then he eats some smooth grass, which runs through his intestines like a mop and cleans them out.

While among wild animals mucous colitis is sometimes met with in the rodents—squirrels, etc.—it is most common, probably, in the otter. In the winter season, when the diet of the otter is most restricted, the stools are simply large collections of slimy mucous containing a few hairs from the animals he has eaten. This mucous stool is one of the signs by which the trapper, at this season of the year, distinguishes the droppings of the otter from those of the other animals. When springtime comes, the otter's diet becomes more diversified, partly vegetable, with more fish and less mink and rabbit, and his mucous colitis often disappears.

Dr. T. B. Bradford (Cotton Plant): If I had one prescription to offer for mucous colitis or for the cure of mucous colitis or constipation, I would write that prescription "water," taken by the mouth. There are so few people, men and women, boys and girls, who drink anything like a sufficient quantity of water. A pint of water for twenty-four hours, for twenty pounds avoirdupois of the individual, is not too much. I venture to say that there has not been a doctor in this meeting who has imbibed two gallons of water a day since he has been in El Dorado, and there is splendid water in El Dorado, ice water and otherwise. I know of nothing that so conduces to regular stools as the free ingestion of water. If a child is taught to use water night and morning, on going to bed and on rising, between meals and at meals, it will be the rarest case for that child to have constipation when he is grown. I know of nothing that leaves the widespread ignorance among the laity as the use of water, and I am not on the water wagon, either. I know of no remedy that God Almighty has placed on this earth, aside from fresh air, that is so beneficial and such a *sine qua non* as pure water. And, while we are using it on the inside, it is well enough to use a little on the outside. It stimulates the glands and produces nerve stimuli that is very necessary as a remedy against constipation. We see a few mothers and a few fathers among the laity, and doctors, who teach their children that water constitutes the greater part of the anatomy. Dr. Thibault said that animals eat grass. They drink lots of water; they get that in their food. Consequently, they are not constipated. Man, being an animal, eats meat, bread and grasses, and he should take lots of water. You see so many people who are afraid of water because they have been taught it's only to float steamboats, to wash buggies, make rivers wet, etc. So I want to impress upon you when you go back home you talk to your patients, talk to your people, about the use of water, and its ingestion in large quantities. It produces rest. Nothing is so much a hypnotic as water taken

at night. It produces that calm sleep that you cannot get from antikamnia, morphin, papin or other remedies.

Dr. Dorr: I don't agree with him about why people quit drinking water. People had to quit drinking water. They had to quit for this reason: because they didn't have a good water supply. You take the human being. God Almighty, in making him, fixed him so that when he threw off his excreta it had to be moved away from him or he had to get away from it; otherwise it would destroy him. You take the tree. It utilizes its excreta; nourishes itself with it. Not so with the human being. He has either got to move it away or he has got to move away. In the olden times they didn't know as much about water supply as they do now. The excreta was thrown into the streams. The water drinkers died because they drank of the stream. Then they took up beer, whiskey and things like that, because they found out that all the water drinkers died. And that is one thing that the temperance people have got to look after if they want to stop the drinking of these stimulating things; they must give good, clean, pure water to the people. You take in the old countries, in Vienna, where they are getting good, pure water from sources of supply eighty-five miles away, they don't drink as much stimulants as we do, because good water appeals to the people, and they are satisfied with it. That's the reason people quit drinking water, because Nature fixed them so that their excreta would destroy them. It has either to be moved away, or they have to move away. In the olden times they threw the excreta in the streams and it contaminated the water, and they died. That's the reason they took up beer and whiskey.

Dr. Douglass: I did not say that animals do not have mucous colitis. I said that young animals do not have chronic constipation. I never heard of them having it. The mucous colitis that animals have is certainly a very different thing from the condition we are talking about in this paper. You can call it mucous colitis or anything else you please.

Dr. Dorr: Call it neurasthenia.

Dr. Douglass: I don't believe it is neurasthenia. There are neurasthenics without this trouble, and, as I said in the paper, a neurasthenic, that is, one having primary neurasthenia, is one born short of nervous energy. He has not enough nerve capital to carry him through the burdens of life, and he falls down when they become extraordinarily heavy. He then may develop a mucous colitis. But I do not believe that neurasthenia is the real cause of this condition we are talking about. It occurs so frequently. The fact that the young human animal is so commonly constipated—why should it be so? I think it is due to an abnormal condition of the alimentary tract, and in youth is the time to correct the evil. I don't believe it is neurasthenia, and I know of no better name to call it than its most prominent symptom. It has a peculiar syndrome. It includes besides mucous colitis, nervous symptoms, severe headaches and neuralgias, and rheumatic pains. These pains do not yield to treatment for rheumatism, and are difficult to keep relieved, and the patient drifts from one doctor to another for relief.

I have known of several cases besides those I have treated, that have pursued this course. I have a man on my hands now whom I cannot do a thing for; I can't give him relief. He has been in this condition for two years. As stated in my paper, I believe it begins with an abnormal condition of the colon, to the fact that the colon is no longer necessary,

that it is really superfluous, and the organism is trying to modify it to the present food supply of the race. This process of elimination of a superfluous part is giving us trouble. I do not believe in treating symptoms unless we have to, but it is exactly our business to treat troublesome symptoms. We don't do anything else. We remove the cause when we can. If we cannot, we relieve the symptoms as far as possible. The thing to do is to eliminate the cause, if we can find it. The main contention of this paper is that we should go back to the original cause of the trouble and get the alimentary canal in a more nearly normal state. As to water drinking, possibly we all ought to drink more water than we do. I am reminded of the remark of Dr. Walt that a man should follow his reason and not his appetite. How many men do that? A large majority of the human race follow appetite and not reason. To a certain extent reason should govern appetite, but there are men who follow reason to such an extent that they go wrong. They disregard appetite to such an extent that they make blunders. Appetite is a normal thing; it belongs to us; it is a part of our being, and comes down to us through many generations, and is the result of long training. For the normal person, appetite is the true guide in water drinking. We should drink it when we want to. They who take enough physical exercise are likely to drink enough water for all physical needs. Dr. Bradford said that water is a good sedative; drink it freely at night, and it would put you to sleep. That custom can be somewhat burdensome. Too much drinking of water before bedtime will likely cause too much getting up at night to urinate.

I think Dr. Dorr's suggestion is very good, that the temperance people should see that we have plenty of pure water, and that would be a good remedy for those who are disposed to drink something stronger.

Dr. Kirby said excessive mononeuclei indicate absorption of poisons from the alimentary tract. That, of course, is the trouble. It is autointoxication which causes the nervous symptoms. The real basic trouble in this condition is irritation of the splanchnic system by poisons from the alimentary canal.

I thank you, gentlemen, for your very kind and full discussion of my paper.

STANDARDIZATION OF THE SURGEON.

J. M. T. Finney, Baltimore (Journal A. M. A., October 24, 1914), discusses the questions of what should be the qualifications of the surgeon, physical and mental, his training, moral and professional standards, etc. The present conditions, he thinks, cannot continue; the public will demand a higher standard and higher ideals in our profession. He especially criticizes surgical practice by the untrained, the tolerance of practices like fee-splitting, and excessive fees without proper regard to the patient's circumstances. The American Medical Association, he thinks, has been somewhat at fault in neglecting these matters. A promise for the future is seen in the recent organization of the American College of Surgeons.

DIAGNOSIS*.

By T. F. Kittrell, M. D.,
Texarkana.

This paper contains nothing original, but is written because I think this is the most important part of surgery, medicine and all of the specialties, and because it is frequently more neglected than any phase of these subjects.

It is most important to the patient and to his physician or his surgeon, as the case may be, and the fact that many times we are unable to make a correct diagnosis should only stimulate us to try harder and harder to make correct diagnoses. Cabot says there are probably as many infections, poisons and maladjustments unrecognized as we now have in our text-books; he calls this "unconquered territory," and says "it is full of hidden dangers to our differential diagnoses;" and then he tells us of that class of cases which do not produce symptoms at all, and which at the autopsy show us our mistakes. There is no doubt but that we need more autopsies to show us the pathology of our cases and to clear up symptoms which we are sometimes absolutely unable to explain without them. In surgical work we often have the opportunity to study living pathology, and much has been learned in this way, especially in the closed cavities of the body—"taking the lid off," as Will Mayo so aptly puts it.

Errors in diagnosis are more often due to carelessness than to ignorance. Attention to details, a careful study of the history of the patient, both past and present, and of his family; this history serves to direct your attention to the most important and leading symptoms. After this has been gotten, a careful and thorough examination of the patient, following up the symptoms which were brought out by the history, and also following up any clues that the examination may show. We should weigh these findings well and try to separate the important from the unimportant ones. "Snap diagnosis," which was once so popular, has given away to the slower but more thorough methods now in use. Then the laboratory aids are of much value; see what they have done in malaria, in typhoid fever, diphtheria, the infections

of wounds and of the puerperium, and of gonorrhea. How did we get along before the spirochæte were found and the Wassermann and other tests for syphilis were developed? How many obscure and doubtful cases were cleared up by this test, cases that we did not dream were syphilitic? Look at the developments of x-ray technic from the mere examination of bone and the finding of foreign bodies, until now the masters in this work sometimes show us gall-stones, frequently kidney-stones, and often bring out stomach, intestine and lung lesions beautifully. The Aberhalden test has even shown us how to make a sero-diagnosis of pregnancy, which is of especial value in ectopic gestations before ruptures.

After all, though, one cannot get along without common sense. He may understand all the newer laboratory methods, and the older ones, for that matter; he may understand how to examine his patient thoroughly; but he will then have a mass of facts that he must sift and separate the wheat from the chaff. This takes good, hard, common sense. Cabot tells us of the physician who had a case coming to him with stomach symptoms; he examined stomach contents, blood, feces, sputum, epigastric region, and prescribed for her hyperacidity. She got no better, and after several weeks went to another physician, who made a pelvic examination and found she was pregnant.

Those of you who have attended the clinics of Murphy are surprised at his attention to every detail, especially the history. That, gentlemen, is the weak point with most of us. I know it has been with me, and I think the reason for it was that my early training was had in a city hospital and dispensary where we had the most untruthful and most ignorant patients to deal with. Murphy calls the history the "hub" of his "diagnostic wheel;" the clinical course, the signs and symptoms in chronologic order represent "spokes and felly." Then to strengthen and add finish to his "wheel," he adds the "tire," which represents the assistance which is received from the laboratory. The above illustration from this great teacher is a most excellent one, and shows his aptitude for impressing important truths.

Take a mistake that at first glance would seem impossible—that of operating on typhoid fever for appendicitis, and yet that has been done time and again. Understand

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now that I am not trying to minimize the ability of the surgeon by saying this; but I think that we men who do surgery should train ourselves to be better diagnosticians. And right here I will say that the surgeons all over this country who are doing original, conscientious work are studying their cases better and knowing more pathology, and consequently are becoming better diagnosticians and better all-around men than those men who a few years ago were merely good operators, but who were too busy to give this part of the subject a minute of their attention.

At the very best we will make many errors. Look at Cabot's report published some years ago on the comparison between autopsy and clinical findings in one thousand cases in the Massachusetts Central Hospital. There were mistakes in about 30 per cent of the cases.

Murphy, in his clinic report, scores the profession for making a diagnosis without unbuttoning the patient's clothes. This he does to emphasize the importance of careful examination of the patient. It is very easy when we are pushed for time, to hurry through in these cases that at first glance impress us as being trivial; but some of these cases turn out to be serious, and if we hurry ourselves we may miss the very symptoms and physical signs that are necessary to a correct diagnosis.

I believe if we will develop some brief case history system we will improve our diagnostic technique. It impresses us more with the patient's history if we write it down.

First. Get the history.

Second. Get the symptoms.

Third. Make a thorough examination.

Fourth. Use all the laboratory aids that are necessary and accessible.

Fifth. Use common sense in making our deductions from the above data.

DISCUSSION.

Dr. Mann (Texarkana): Dr. Kittrell mentioned one thing that I believe ought to be carried out much more fully than is being done at present, and possibly it could be done, and that is "autopsy." I believe that every doctor ought to get an autopsy on every patient that he can. I believe, further, that the members of the family ought to ask for an autopsy. I believe it would not be a bad idea for the Board of Health to ask for an autopsy. I believe it would make better doctors. We talk about the

great and important functions of the Board of Health. I think sometimes the Board of Health might ask for an autopsy to ascertain what was the matter with the patient when he died. I am sure that doctors would make better practitioners in cases where there is no prejudice against autopsies; and the people who are living will be greatly benefited by such procedure. The family which loses a member should insist on their family physician holding autopsy not only on the patient who has died, but on every death in the community where permission to do so can be obtained. You know that doctor is going to be better educated by getting this autopsy than if he did not get it. You know he is going to be stimulated to make more accurate diagnoses by getting the autopsy than if he did not. I believe in every case it ought to be done.

I have enjoyed the doctor's paper very much.

I have an old friend down at home who is the poet of the Tri-State Medical Society, Arkansas, Louisiana and Texas, and he says: "Gentlemen, there are just two questions in medicine, only two. Whatever you say or do, you will never get but two questions in medicine. First, the diagnosis, and then the treatment."

Dr. Newton (Monroe, La.): The question of diagnosis has often impressed me in this way, simply from the fact that I feel that it is many times merely perfunctory. It is not accorded to every individual physician to be where he can get the benefit of teamwork, but there are many times when this can be accomplished in an indirect way. The trouble is that not all of us are competent enough to be classed as thorough diagnosticians. Of course, I do not speak of those acute conditions that one who runs may read; but I refer to the complicated conditions. Take the condition that starts out with one thing and becomes later associated with another. I think the great fault of some practitioners at the present time is not going into that thorough and complete examination and history that Dr. Kittrell so ably outlined in his paper and stressed the importance of it. Of course, if we have laboratories we can do it ourselves; but with those who are not equipped, the blood, the urine, the sputum and feces may be sent away where these examinations may be made, or, if necessary, the patient taken to an x-ray man.

In many of these obscure conditions it is not only necessary to get the history, which is very important, but it is necessary to bring it up to outline the associated complication. It is absolutely essential that we assure ourselves on all points in these complicated conditions. Therefore, we must give more attention to history as well as symptoms, before deciding about our patient. I say it is not only essential to observe foregoing data, but absolutely necessary. Many of our cases are converted into tragedies for the lack of thorough diagnosis.

Dr. Kittrell (Essayist): I wish to thank the gentlemen very much for their liberal discussion of this paper. I think that microscopic and laboratory tests should be made in all cases where the conditions present suggest that they be necessary; but they are made practically to confirm what the physician believes he has found in his examination and history of the case. He has to first believe certain things are present, else he would not send the blood, feces or sputum to be examined by the laboratory man. He knows or has some definite idea of what the difficulty is, but he wants the laboratory man to put in the finishing touches.

PURPURA, WITH REPORT OF CASES.*

By James Chesnutt, M. D.,
Hot Springs.

Purpura may be defined as "spontaneous hemorrhages developing in and beneath the skin and mucous membranes." Its cause is unknown; it is a symptom rather than a disease, and may occur in almost any infectious disease, or toxic condition. The form of purpura to be discussed in this paper is purpura with or without erythema, urticaria, edema or joint manifestations. From a number of cases several have been selected, all of which were associated with chronic malaria.

Thayer, in speaking of purpura in malaria, says, "Of peculiar malignancy are cases with manifestations of purpura hemorrhagica." In another place he says, "Among the cutaneous manifestations in chronic cases, especially when cathetic, is purpura which appears as a severe or even fatal purpura." The histories of the following cases show them to be associated with a chronic malaria. Some had chills and fever; some joint manifestations, whilst others had a gigantic edema, which selected the same parts of the body with regularity. All of these patients responded well to anti-malarial treatment, and my reason for reporting the results is to lay stress upon the necessity for blood examinations in obscure cases of purpura.

The history of the following cases is limited to the history of the present illness, except in so far as it has a direct bearing on the case.

Case 1. A woman, aged sixty, with a history of frequent attacks of malaria, urticaria and occasional attacks of purpura, came to me complaining of rheumatism of the left knee. The knee was enormously swollen, much fluid being in the joint, though part of the swelling was extra-articular. Two months previously the lower part of the thigh and upper part of the left leg had turned blue. Accompanying this was severe pain and effusion into the joint. At the time of examination there was simply the effusion and no sign of purpura. From the history, the condition was regarded as purpura rheu-

matica, and under hot packs the effusion was rapidly absorbed.

When the patient seemed almost well, there appeared on the outer aspect of the left thigh three huge ecchymotic spots, one of which was as large as the palm of the hand. No pain accompanied these and the patient was inclined to regard them as bruises, arising from massage by the bath attendant. On the next day the patient had slight chilly feelings in the extremities, severe aching in the knees, followed in a few hours by a crop of petechie, varying in size from a pin point to a pea, and involving both extremities, but particularly the lower. There were, in addition, numerous purpuric spots on the chest and abdomen, and as in the first attack, an effusion into both knee joints.

A blood examination showed estivo-autumnal malarial parasites. Under quinin and iron she soon got well. In the past two years there have been some twinges in the joints, but no purpura or effusion.

Case 2. A man, aged fifty, with a history of frequent malarial attacks in early manhood, came complaining of two things: first, an edema of the lip, tongue and feet; secondly, that his skin bruised easily. Questioning elicited the fact that he frequently had blue spots without any trauma. A few days after being first seen, he had an attack of edema, which caused his tongue to swell so greatly that it completely filled the roof of his mouth, making articulation impossible.

Various forms of treatment were tried, but it seemed that by the time one attack subsided another began, sometimes with and sometimes without purpura, but always with erythema, urticaria or edema. A study of the condition led me to believe it was periodical, coming on the seventh or fourteenth day, though there seemed to be exceptions to this. A blood examination showed a few malarial parasites of varying age. Anti-malarial treatment caused in two weeks a subsidence of all symptoms. In the past two years there has been only one attack, which subsided promptly under quinin; in fact, the patient of his own volition took the quinin. Previous to taking anti-malarial treatment, the patient had each year several attacks, each lasting two or three weeks and characterized as above.

Case 3. A woman, aged fifty-five, came complaining of edema of the wrists and hands and occasional purpuric spots. The swelling

*Read by title before the Section on Practice of Medicine of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

of the hands was at times so severe that she could not close her fist. A blood examination showed an occasional parasite, but anti-malarial treatment had no effect. The excretion of urea was five to eight grams in twenty-four hours. Increase in the amount of water drunk, salines each morning and a small dose of thyroid extract three times daily soon brought the urea to twenty grams in twenty-four hours. With the increase in urea there was a rapid improvement in her condition. When, however, she neglects water drinking or uses no care in her diet, her symptoms return.

Case 4. A woman, aged fifty-six, who had been treated for two years for rheumatism of the knees, aching in the limbs, and occasional purpuric spots, came to me complaining of an exacerbation of her symptoms since taking the baths. She had a decided malarial tinge. I at once made a blood examination, finding numerous almost full grown tertian parasites. I advised her not to bathe, but she bathed anyway. Two hours after her bath she had a severe chill, accompanied by an enormous crop of purpuric spots and effusion into the knee joints. Anti-malarial treatment promptly relieved her. For the past three years she has been entirely well.

Case 5. The history of this case is so interesting that I shall give it somewhat in detail. A boy, aged two, began the summer in apparently good health. Early in May he suffered from malaria and coldness of the extremities, and at times a slight rise in temperature. Soon after this he developed a gastro-enteritis with loss of appetite, weight and strength, so that in the course of two months he presented a perfect picture of profound cachexia. During the development of the above symptoms he began to have remarkable attacks of urticaria, edema and erythema, affecting most of the body. With these at varying intervals were crops of petechie, occurring chiefly in the lower extremities. The skin on the legs was deeply pigmented from successive crops of purpura. There was at times a moist eczema of the neck and behind the ears.

The patient finally became so weak that there seemed no hope. The appetite was nil, and that which was eaten seemed to aggravate the intestinal condition. The purpura,

etc., was regarded as a part of the cachexia. The temperature at this time was subnormal.

In the absence of one of the physicians, I was called in at a time when the child was having a definite chill, which was followed by a distinct rise in temperature, falling to normal the next morning. Two months previously there had been chilly feelings, but this was the first definite chill.

The treatment given was a massage twice daily, with five grains of alkaloid quinin dissolved in two drams of olive oil, quinin by mouth in large doses. From the moment quinin was begun, there was improvement. No treatment other than iron, quinin and arsenic was given. The intestinal symptoms disappeared, the appetite returned, and in six weeks the child was on the road to recovery. The purpura disappeared and has never reappeared. One year later the child had a mild attack of malaria, which was confirmed by blood examination. In this instance there was urticaria and erythema, but no purpura. Quinin promptly cured this. In the past eighteen months there has been no recurrence of the disease.

The conclusion to be drawn from this is that five out of twenty cases of purpura occurring in my practice had associated with it malaria. Of these, two had joint manifestations, two edema of an angioneurotic type, and one erythema, edema and urticaria. All these patients responded to an anti-malarial treatment. What role the malaria played I am not prepared to say, but in a condition as obscure as purpura, it seems wise to give thorough malarial treatment if malaria be present even without symptoms.

JUVENILE PSYCHOSIS.

H. H. Drysdale, Cleveland (Journal A. M. A., October 10, 1914), reports a case of juvenile insanity in a lad aged eleven and remarks that the condition is, in his opinion, much less rare at such early ages than is generally supposed. The family history in this case was not good. The mother was at least eccentric and the grandmother had been insane and the father had been at one time intemperate. The child suffered from hallucinations and delusions and had a partial amnesia of his condition after the attack. Prolonged hot packs seemed to be most effective as a therapeutic measure in bringing about his recovery.

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DR. WILLIAM E. BATHURST, Editor.

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Anonymous communications will not appear in the columns of this Journal, no matter how meritorious they may be.

Editorials.

THE MAY STATE MEETING.

May draws on apace and the annual meeting of the Arkansas Medical Society will be upon us before we realize it. The meeting will be held in Little Rock, which, being near the geographical center of the state and having railroad connections with every corner of the state, without tiresome delays at connecting points, should bring a record-breaking crowd to the meeting. It goes without saying that in transportation facilities, hotel accommodations and possibilities of entertainment, Little Rock has advantages which no other city in the state possesses.

The thirty-ninth annual meeting will take place May 3, 4, 5 and 6, with the House of Delegates holding its first session on the afternoon of the first day. On that evening the second annual meeting and luncheon-smoker of the County Secretaries' Association will be held in the Hotel Marion. A real live program has been already prepared, and while no dues are paid in this auxiliary society, this meeting will cost one dollar, which includes the refreshments.

On Tuesday morning, May 4, the general session will be held, opening with the president's annual address. The scientific session

will follow immediately with an address on "Pediatrics." The sessions on Wednesday and Thursday, May 5 and 6, will open with addresses on "Medicine" and "Surgery," respectively. These addresses will be made by distinguished visitors whose names will be given later.

On Wednesday evening an open session will be held under the auspices of the State Board of Health. This, like other public meetings held by the Arkansas Medical Society, will be of an educational character devoted to matters pertaining to public health and hygiene, with which the general public should be better acquainted. For the past three or four years considerable difficulty has been experienced in getting all the section officers together to complete their section with the allotted number of papers. For this reason it was thought advisable last year by the officers and House of Delegates to suspend the sections, leaving the scientific papers to be secured by the Program Committee. This will admit of a larger program, and at this time, with the meeting three months off, the program already promises to be very attractive.

A big reception will be given on Thursday evening, and in addition there will be other social functions to be announced later, and very special attention and courtesies will be extended the visiting ladies.

Every member should make it a point to attend the annual meeting. Let's make it a record-breaker. The Arrangement Committee promise a convention hall that will be convenient, quiet and comfortable, and a warm welcome awaits all who favor us with their presence.

THE WAR AND FUTURE GENERATIONS.

Prince Henry: I never did see such pitiful rascals.

Falstaff: Tut, tut, good enough to toss; food for powder, food for powder; they'll fill a pit as well as better.

—Shakespeare (Henry IV).

There is one terrible feature of the great war in Europe which has had little attention from the editorial writers of the lay press, although it is of the utmost importance to the welfare of the race. That is the inevitable effect on future generations. What are the qualifications for the regular armies of the world, and for the first call for additional troops? Age, eighteen to thirty-five; height,

five feet six inches or more; perfect health, no blemishes, no imperfection of sight or hearing, sound lungs and heart; even the absence of a finger will bar the applicant. In other words, only the physically fit are taken. True it is that the rules are relaxed after the first enrollment of reserve troops, but that is after the pick of each nation has been taken. And the physically fit, the healthy, normal, strong, young men are sent first to the front. It is the next best that comes after. At the front they are shot down or maimed, disabled, nerve-racked, and those who go out fit return unfit.

The primal importance of fit parentage for race betterment is so universally recognized that it were superfluous to remind our readers of the fact. It has been so much preached of late that it has taken the form of the advocacy of eugenic marriages and attempts at legal examination by physicians as a prerequisite to marriage. Foolish efforts, perhaps, but still useful as showing an awakening to the evils of promiscuous, irresponsible procreation.

Now, we find the nations of Europe, the Christian nations, the nations boasting of their civilization, sending the flower of their youth to be food for powder and leaving the unfit to father the next generation. All history foretells the inevitable result. What became of the once powerful Phœnicians? Conquerors they were until the slaughter of those physically fit to be the progenitors of a strong race. Then a weakened generation followed and they fell prey to their foes. What of the conquering races of the past? The Greeks, the Romans, the Moors, the Egyptians, the Persians, the Venetians? Where is the power and glory of their illustrious past? Gone never to return. It is said that after the Franco-Prussian war of forty-five years ago, the succeeding generation of Frenchmen showed an average decrease of one inch in stature. And that war was a summer picnic compared with the hideous conflict now engaging ten million or more of the best men in all Europe.

What must the harvest be? Can nature be thus cheated? We all know it cannot be. With a large portion of the strongest of the race destroyed, weakened, nerve-racked, the result must be a deteriorated race. There is no possible escape, and it will be in evidence

not only in the next generation, but in the centuries to come.

This editorial is headed from a quotation from Shakespeare. Falstaff impressed men of means and lined his purse by taking their money for substitutes, filling their places by impressing the scum of the earth. But his explanation to his prince? Is it not the true philosophy after all? Why take the flower of the land when the unfit are just as good "food for powder."

THE BACTERIOLOGY OF WOUNDS IN THE WAR.

The European war has developed hitherto unused and unexpected methods of warfare. It has also brought new problems in military surgery and new aspects of surgical bacteriology. The Journal of the American Medical Association has published foreign correspondence indicating the peculiar nature of some of the wounds encountered and referring to some of the characteristics of the wound infections and their consequences following the injuries received on the battlefields. The reports of some of the bacteriologic investigations which have been conducted in the French hospitals serve to explain some of the consequences and to indicate the surgical procedures that may be called for in the management of the wounded on the French and Belgian frontiers. Metchnikoff states that wounds produced by bullets are frequently free from micro-organisms. The list of bacteria found in wounds dressed in the military hospitals includes many forms of micro-organisms occasionally found in almost pure culture, notably in penetrating wounds of the skull and in simple bullet wounds of limbs. Some are of only slight virulence, and erysipelas is reported in few instances. In most of the open wounds foreign substances such as shrapnel balls, fragments of shells and pieces of clothing are present. The germs of gangrene and tetanus are also found. In a report to the sanitary service of the British army in France, Weinberg argues that it is logical to assume that these organisms found in the wounds are of intestinal derivation. The earth in the trenches from which those suffering with gangrene were taken is often soiled with human dejecta and manure. Remnants of filthy clothing likewise find their way into the wounds.

INVENTION vs. DESTRUCTION.

This is pre-eminently the inventive age. The inventions of this period have not only transcended the wildest imaginings of past centuries, but even of an older generation now living. The railroad, the telegraph, the telephone, the automobile, the airship, the wireless, the motion picture, the electric light, electric power, the *x-ray* and other modern marvels were not known in the memory of some living men, and, of course, some of them were not known in the early days of those of middle age.

Very wonderful it is; so wonderful that man is prepared to believe in the possibility of almost anything, so fast has one wonder trod upon the heels of another. And were inventive genius directed only into constructive channels, what a marvelous future might be predicted for the human race. But the trouble is that destructive inventive genius keeps pace with the constructive. The airship is used to destroy. Death is in the submarine. We have great engines of war for destructive use on the land and at the sea. Machine guns, smokeless powder, the Maxim silencer, dynamite and other mighty forces are used only to destroy. Four hundred years ago Shakespeare put into the mouth of Hotspur his plaint against the too nice courtier:

"And as the soldiers bore dead bodies by,
He called them untaught knaves, unmannerly,
To bring a slovenly, unhandsome corse betwixt the
wind and his nobility;
And that it was great pity, so it was,
This villainous saltpeter should be digged
Out of the bowels of the harmless earth
Which many a good tall fellow had destroyed so
cowardly—"

Since then we have made wonderful strides in the gentle art of killing. And how soon will it react on civilization? Are we reaching that condition which Professor Bergson calls "the new barbarism," the mastery of the sciences without the mastery of the soul which alone spiritualizes?

THE HARRISON LAW AS APPLIED TO PHYSICIANS.

An abstract of the Harrison bill and the regulations thereto appears in this issue. After three years' discussion, this bill has finally become a law, being signed December 17, 1914, and becoming effective March 1, 1915. Its object is to limit the sale of habit-forming drugs to legitimate purposes by requiring a record of all transactions in such drugs. Any

physician who dispenses or prescribes any drug preparations containing opium or coca leaves or any of their derivatives is required to register with the collector of internal revenue of his district and to pay an annual registration fee of one dollar. This is pro rated for the period from March 1, 1915, to July 1, 1915, at 34 cents. Physicians dispensing their own drugs must use the blank prescribed by the commissioner of internal revenue in ordering their supplies, and must keep a record of all habit-forming drugs dispensed to patients. Physicians prescribing drugs must sign their full name and give their registration number with the name and address of the patient on each prescription. All persons having such drugs in their possession March 1, 1915, must make an inventory of such drugs, showing exactly the amount on hand at that time. This inventory, which must be verified by affidavit, is kept by the individual and is not filed with the commissioner. One important point of controversy between the physician and the druggist is settled by the ruling of the commissioner of internal revenue. Only the original of prescriptions containing these drugs can be filled. The refilling of prescriptions is forbidden. Patients desiring an additional supply of such drugs must procure an original prescription from the physician. The law also requires a general registration of all physicians, dentists, druggists and veterinary surgeons, and only such persons will be allowed to dispense or prescribe these drugs. This law is a legislative experiment. Some time many regulations and several amendments will probably be necessary before it can be reduced to smooth working order. In the meantime, according to the Journal of the A. M. A., physicians should at once take two precautions: They should make immediate application to the deputy commissioner of internal revenue of their district for registration, and they should make an inventory of all drugs and drug preparations in their possession containing opium or cocaine, so that when the law goes into operation, March 1, each physician may have written evidence of the amount of these drugs in his possession at that time. Whether or not it will be possible to put so sweeping a measure into effective operation in so short a time remains to be seen; but physicians can give material assistance in the enforcement of the law, and can relieve themselves of any danger of embarrassment by taking these two steps.

Personals and News Items.

PERSONALS.

Dr. and Mrs. S. W. Hooke of Little Rock visited in Benton last month.

Dr. R. N. Smith of Augusta is attending the clinics at the New York Polyclinic College and Hospital.

Dr. R. H. Huntington of Eureka Springs is attending the eye, ear, nose and throat clinics in New Orleans.

Every advertiser in this Journal is paying you for the privilege of telling you about the things he has to sell. You should read what they have to say.

Dr. T. M. Morgan of Wesson and Dr. V. T. Utley of Farrell are attending clinics at the University of Arkansas Medical Department, Little Rock.

Uncle Sam Breakfast Food Company of Omaha has a box of breakfast food that they would like very much to send you if you will fill out the coupon at the corner of their page ad in this issue.

If you appreciate The Journal, show it by patronizing the advertisers, for the advertisers must receive your patronage in order to justify them in continuing their advertising, and The Journal must have the advertising in order to exist. When you make an inquiry or place an order with them, be sure to say that you saw their ad in your State Medical Journal.

The following physicians visited in Little Rock during the past month: W. G. Hodges, Malvern; A. E. Cone, Portland; H. Castile, Winchester; D. R. Dorente, Fort Smith; W. J. Miller, Griffithville; St. Cloud Cooper, Fort Smith; W. S. Stewart, Pine Bluff; T. G. Porter, Hazen; S. W. Colquit, McKamie; C. S. Holt, Fort Smith; L. R. Ellis, Hot Springs; J. E. Jones, Sheridan; R. G. Rowland, El Dorado; L. E. Love, Dardanelle; M. A. Worsham, Centerville; A. S. J. Collins, Monticello; G. C. Tucker, Roland; S. J. Hesterly, Prescott; A. W. Jennings, Tuckerman; S. J. Mason, Calico Rock; E. N. Lipe, Seranton.

Begin now to perfect your plans for a visit to Little Rock—the City of Roses—at the time of the thirty-ninth annual meeting of the Arkansas Medical Society. Suggest and encourage friends and college chums to imitate your decision to be present. Come and

meet your old friends, renew past acquaintances and make new ones among those whose sympathies and work are in your chosen profession.

NIEHUSS' VACCINATION METHOD.

No pain, and the babies love it.

Catch two or three folds of gauze bandage with a pair of hemostatic forceps; holding the child's arm with the left hand, produce just enough friction to allow a little serous exudate—no blood. Apply the vaccine, and dress the wound by the usual method.

Dr. H. H. Niehuss has been using this method for several years with excellent results, and never realized until recently so much the advantage over the old method. He does not recall where he got this idea, nor the exact time when he began using it. However, it is painless and the vaccine is certain to take, other things being favorable.

MORTALITY STATISTICS FOR 1913.

DEPARTMENT OF COMMERCE,
BUREAU OF THE CENSUS,
WASHINGTON.

Washington, D. C., February 8, 1915.—The annual report on mortality in the United States, relating to the calendar year 1913, which is soon to be issued by Director Harris, of the Bureau of the Census, of the Department of Commerce, will show a death rate of 14.1 per 1,000 estimated population in the registration area of the United States, a slight increase as compared with the rate for 1912. The report was outlined by Dr. Cressy L. Wilbur, formerly connected with the division of vital statistics, Bureau of the Census, and was prepared under the direction of Mr. Richard C. Lappin of that division.

In May, 1914, the Census Bureau issued a preliminary statement relating to mortality in 1913, but the detailed report contains many features of interest not included in the preliminary announcement.

AVERAGE AGE AT DEATH.

The average age at death for both sexes, from all causes combined, was 39.8; for males alone, 39.2; for females alone, 40.6. The corresponding averages for 1912 were 40.6, 39.9 and 41.4. The report cautions the reader not to confuse the average age at death with expectation of life as given in life tables.

Nearly 18 per cent of all deaths were of infants under one year of age, and more than

25 per cent were of children under five years. After the first five years of age deaths are most frequent among persons between seventy and seventy-four, inclusive. This applies to both sexes combined and to women alone, the deaths among these groups forming 6.56 per cent and 6.88 per cent, respectively, of the corresponding totals. For men alone, however, the period of greatest mortality is between the ages sixty-five and sixty-nine, inclusive, the deaths during this period constituting 6.4 per cent of the total for males.

FEWER DEATHS FROM TUBERCULOSIS.

The death rate from tuberculosis (all forms) declined from 149.5 per 100,000 population in 1912 to 147.6 in 1913. The rate from this cause shows a continuous, though irregular, decline from year to year since 1904.

The death rates from cerebral hemorrhage (apoplexy) and organic heart diseases and endocarditis also declined as compared with 1912, the former from 75.7 to 74.6 per 100,000 population, and the latter from 151.2 to 147.1. These rates, however, are higher than in most of the years between 1900 and 1912.

Although the rates for typhoid fever, scarlet fever, diphtheria and croup, pneumonia (all forms), and diarrhea and enteritis (infants under two years) show increases as compared with 1912, there has been a general and pronounced decline in the rates from these causes since 1900.

DEATHS FROM CANCER INCREASING.

On the other hand, there has been an almost continuous increase from year to year since 1900 in the death rates from cancer, organic heart diseases and endocarditis, nephritis, and Bright's disease. The most marked increase for any one of the most important twelve causes of death was that in the rate for cancer, which rose from 63 per 100,000 population in 1900 to 78.9 in 1913, and in only two cases did the rate for any year between 1900 and 1913 show a decrease as compared with the preceding year.

DEATHS FROM SUICIDES AND VIOLENCE.

There were 9,988 suicides in the registration area during the year 1913, the rate being 15.8 per 100,000 population—a slight decrease as compared with 1912, when the rate was 16.

In the registration area there were 58,578 deaths from violence (including homicide and legal execution, but excluding suicide),

corresponding to a death rate of 92.5 per 100,000 population. This rate shows a considerable increase as compared with that for 1912, which was 88.9.

DEATHS CAUSED BY AUTOMOBILES AND HORSES.

That the automobile, in spite of the rapidity with which it has come into general use, is still less deadly than the horse, might be inferred from the fact that the mortality incident to its operation was less in 1913 than that chargeable, directly and indirectly, to man's faithful but sometimes erratic friend. During the year the number of deaths resulting from automobile accidents and injuries was 2,488, while the number due to injuries and accidents caused by other vehicles (principally horse-drawn) was 2,381, and the number caused by animals (principally horses) was 540. The corresponding figures for 1912 were, 1,758, 2,221, and 543. A few fatalities caused by motorcycles and bicycles are included in those due to "other vehicles," and a small number chargeable to animals other than horses are comprised in those caused by animals; but, after making due allowance for these factors, there still remains a considerable "margin of safety" in favor of the automobile. Deaths due to railway accidents and injuries during the year numbered 8,212, and those resulting from street car accidents and injuries, 1,998. The corresponding figures for 1912 were 8,209 and 1,832. For the first time the number of fatalities due to automobile accidents and injuries exceeds the number resulting from injuries caused by other vehicles and also exceeds the number due to street car accidents.

REQUIREMENTS OF THE HARRISON LAW.

As previously stated, the Harrison bill, which has been before Congress for the last two years, became a law December 17, 1914. Official copies of the law and the regulations for its enforcement have been issued by the commissioner of internal revenue. While the provisions of the bill were discussed at length during its consideration in Congress, so many modifications took place that a general summary of the law as finally enacted seems advisable.

THE SECTIONS.

Section 1 provides that on and after the first day of March, 1915, every person who produces, imports, manufactures, compounds,

deals in, dispenses, sells, distributes or gives away opium or cocoa leaves or any compound, manufacture, salt, derivative or preparation thereof shall register, with the collector of internal revenue of the district, his name and place of business, the office of a physician, or residence in the absence of an office, being considered the place of business. At the time of registration and on the first day of July annually thereafter, each person who performs any of the acts covered by the bill must pay to the district collector of internal revenue a special tax of one dollar per annum. Officers of the United States government lawfully engaged in purchasing such drugs, or officers of any state, county or municipality purchasing drugs for public hospitals, are exempt.

Section 2 provides that it shall be unlawful for any person to sell, barter, exchange or give away any of the specified drugs except in pursuance of a written order from the person to whom the drugs are sold or given, which order must be on a form issued in blank by the commissioner of internal revenue. These orders must be made out in duplicate, one copy to be written by the person ordering the drugs and the other by the person filling the order, and both copies must be accessible to the revenue officer for a period of two years. The following acts are exempt: The dispensing or distribution of any of these drugs to a patient by a physician, dentist or veterinary surgeon, registered under this act, in the course of his professional practice only, provided the person dispensing shall keep a record of all such drugs for a period of two years. The filling of a prescription written by a physician, dentist or veterinary surgeon, registered under the act, is also exempt. Such prescriptions must be dated and signed by the physician and must be preserved by the druggist for a period of two years. The various forms and blanks required shall be furnished by the commissioner of internal revenue at a price not to exceed one dollar per hundred.

Section 3 provides that any registered person shall, on request of the collector of the district, render a sworn statement of the quantity of the prescribed drugs received by him during the past three months and the names of the persons from whom they were received.

Section 4 forbids interstate commerce in these drugs, except by a registered person, common carriers being exempt.

Section 5 provides that all records shall be open to the inspection of the officers of the Treasury Department or officers of any state or territory or municipality charged with regulating the traffic in the specified drugs. Certified copies of returns can be secured from the collector of internal revenue by state or municipal officers. The disclosing of information except for the enforcement of the act is forbidden.

Section 6 provides that the act shall not apply to the sale, distribution, giving away, dispensing or possession of preparations which do not contain more than two grains of opium or more than one-quarter of a grain of morphin, or more than one-eighth of a grain of heroin, or more than one grain of codein, or any salt or derivative of them in one fluid ounce, or if a solid or semisolid preparation, in one avoirdupois ounce, or to liniments, ointments or other preparations prepared for external use only, except those which contain cocaine or any of its salts or alpha or beta eucain. Decocainized cocoa leaves or other preparations of cocoa leaves which do not contain cocaine are also exempt.

Section 7 provides for the extension of all internal revenue laws so as to make them applicable to this act.

Section 8 provides that no person not registered under the provisions of this act shall have in his possession or under his control any of the specified drugs, such possession or control to be presumptive evidence of the violation of this act. Employees of registered persons, nurses under the supervision of physicians, dentists or veterinary surgeons registered under this act, or the possession of drugs in accordance with a prescription of a physician registered under the act, are exempt.

Section 9 provides a penalty of a maximum fine of \$2,000.00, imprisonment of not more than five years, or both, for violation of the law. Section 10 authorizes the commissioner of internal revenue to appoint necessary persons to enforce the law. Section 11 appropriates \$150,000 for carrying it out, and Section 12 provides that this act shall not amend or repeal the previous laws on this subject.

THE REGULATIONS.

The regulations are somewhat more illuminating, as they form the application of the law to specific conditions. The registration fee for the period remaining from March 1, 1915, to July 1, 1915, is prorated at 34 cents, remittance to be made in currency, money

order or certified check. Application for registration blanks should be made to the collector of the district. Each application will be given a registry number which will be permanent and which will be entered on all blank orders issued to the applicant. All applications will be recorded alphabetically by classes, and coupon stamps to the amount of the special tax required will be furnished by the collector. Orders for any of the specified drugs must be made on the prescribed form, supplied by the collector of internal revenue bearing the registry number and signature of the person ordering the drugs. All orders must be in duplicate, the duplicate retained by the maker and the original by the person filling the order, and both copies must be kept on file for two years in such a way as to be readily accessible to the inspecting officers. A written order is not required for the dispensing or distribution of any of the specified drugs to a patient by a physician registered under this act in the course of his professional practice, but a record of drugs so dispensed must be kept by each physician in a suitable blank book to be provided by the physician, the records showing the date, the kind and quantity of drugs dispensed, and name and residence of the patient to whom the drugs were given. Prescriptions must be dated and signed on the day issued, and must contain the name of the physician and the name of the person for whom the prescription is filled. Druggists are required to file such prescriptions separately or else to keep a separate record of such prescriptions, showing the file number in each case. In addition to the signature of the physician, the prescription must state the registry number, the location of the office of the physician, and the name and address of the person for whom such prescriptions are written. Druggists are required to refuse to fill prescriptions that are not so signed, or any prescriptions that they have reason to suspect were fraudulently issued. The dispensing of such drugs by druggists, except in accordance with the physician's original prescription, is forbidden. Refilling of prescriptions containing habit-forming drugs is therefore prohibited under this law. Each person dispensing these drugs directly to consumers is required on the first day of March, 1915, to prepare and keep on file an inventory of all such drugs on hand at that time.

Copies of the law, and the regulations with an appendix giving the collection districts

and the address of the collectors of internal revenue for each district, can be obtained from the commissioner of internal revenue at Washington or from the collectors of the various districts. The pamphlet is Internal Revenue Regulations, No. 35, dated January 15, 1915.—Journal A. M. A.

FOR SALE—One Wantz X-ray Coil, manufactured by the Victor Electric Company, one Western Coil, 16-inch, manufactured by the Schiedel-Western Electric Company. Both machines suitable for therapeutic and heavy radiographic work. In perfect condition, and at a reasonable price. Address, Dr. A. M. Zell, Bankers Trust Building, Little Rock, Ark. (Advt.)

SITUATION WANTED

Position as assistant; contract work, or to take full charge of busy physician or surgeon's practice for or any time during the next five or six months. Graduate of Washington University; post-graduate courses in this country and abroad; eleven years private and general hospital experience. Have surgical ability; good habits; energetic, agreeable personality and good appearance. Age 35; married; best references. Available at once. Address:

R. M. WILSON, M. D.

(Advertisement)

COLUMBUS, ARK.

A TIMELY QUESTION.

What are you going to do with your drug and alcohol habitues? Professional opinion has advanced to the position of regarding these addictions as a disease which is amenable to treatment. Sanitarium care is necessary to the successful handling of such patients, but with the aids afforded by a well-equipped institution, the results of treatment are very satisfactory.

At the Pettey & Wallace Sanitarium, Memphis, Tenn., the most approved methods are employed and the work is carried out under the personal supervision of Dr. Pettey, who originated and published to the profession the now generally accepted method of treatment. When referring patients of this class, don't forget that the man who originated the treatment and who devotes his entire time to it is better equipped to do successful work than one with less experience.

The complete work of Dr. Pettey, a volume of more than 500 pages, can be had of him, or of the publishers, F. A. Davis Co., Philadelphia. (Advertisement.)

Abstracts.

THE PROPER DOSAGE OF DIPHTHERIA ANTITOXIN.

Some studies of Schick, according to The Journal of the American Medical Association, of December 12, "seem to be of such practical importance for the every-day work of practitioners as to make it desirable that every physician should become acquainted with them."

"Careful observation showed," says The Journal, "that the main effect of the antitoxin is one of immunization—that is, a suitable dose of antitoxin renders the individual immune to a dose of toxin administered later. On the other hand, even a large dose of antitoxin has but slight effect on the action of toxin injected previously. To be sure, there is some effect on toxin introduced from three to six hours before the injection of antitoxin, and in exceptional cases an enfeeblement of the effect of the toxin introduced nine hours before the antitoxin was given; in other words, the main effect of antitoxin injection is to protect against toxin acting after the antitoxin is introduced. Further observations showed that a maximal antitoxin effect is obtained with a dosage of 500 units per kilogram; larger doses have no greater influence, either on simultaneously injected toxin or on toxin injected twenty-four hours afterward. The retroactive effect on toxin injected three hours earlier is very slight, even when 500 units per kilogram are given, and such large doses have only a slightly better effect than doses of 100 units per kilogram.

"In the treatment of human diphtheria, therefore, Schick and his colleagues recommend (1) that the injection be given at the earliest possible moment; (2) that it be given intramuscularly; (3) that in all mild and medium cases of diphtheria (and these make up about 90 per cent of all cases) a single dose of 100 units of antitoxin per kilogram suffices, and (4) that in the severest cases 500 units per kilogram may be injected. In other words, in a child weighing 20 kg. (or 44 pounds), 2,000 units will, in 90 per cent of the cases, suffice, while in 10 per cent of the cases of the most severe type a dosage of 10,000 units may be given. In an adult weighing 60 kg. (or 132 pounds), a dose of 6,000 units will suffice in all the ordinary cases, whereas in the severest cases a single dose of 30,000 units may be given.

"One of the most important of Schick's observations is that repeated injections of the serum are superfluous and not warranted. Even in the severest cases, he asserts that if a dose of 500 units per kilogram be injected immediately the greatest good possible will be obtained. Subsequent injections of antitoxin after six, twelve or twenty-four hours are, he maintains, unnecessary, for any further effect of toxin is prevented by a single dose of the size mentioned. If the diphtheria patient dies, it is because the toxin elaborated by the organisms in his body has had time to act before the antitoxin was injected, and cannot by any means as yet known to us be afterward inactivated. The only circumstance in which a second injection is of value is when the first injection given has been smaller in dose than the optimal doses recommended; then one may give a single dose of 500 units per kilogram.

"In persons exposed requiring an immunizing dose, a single injection of 50 units per kilogram is sufficient.

"If the conclusions drawn by Schick and his colleagues from these interesting studies be correct, it is obvious that the practitioner will, from now on, be provided with a precise method of treating diphtheria patients hitherto much desired."

EXPOSURE OF THE APPENDIX.

One of the most important points to be decided in appendix operations, says William Neill, Jr., Baltimore (Journal A. M. A., January 23, 1915), is to decide what kind of an incision to make. Where the diagnosis is not absolute it is usually wiser to make a right rectus incision and with this, if a gangrenous appendix is suspected, and if drainage is necessary, then a small gridiron incision can be made near the anterior superior spine just where the drain is to be inserted directly down to the cecum. He calls attention to the method used by Dr. Thomas Cullen for exposing retrocecal and densely adhesive appendices which he finds greatly simplifies the otherwise difficult and tedious operation. Not infrequently it is impossible to expose the appendix under such conditions, but he says in nearly every case it can be located by following the longitudinal band on the cecum. When once this is located Cullen runs a pair of Kelly blunt forceps through the meso-appendix at this point and grasps a piece of tape, the two ends of

which are grasped in the tips of the forceps and used as a tractor. Strong traction is thus exerted without injury either to the cecum or the appendix, and nearly an inch of the appendix can be brought out. Another pair of Kelly forceps is inserted and grasps the second piece of tape and draws out a still further portion, and a third pair also inserted with tape will usually enable one to expose the tip. Sometimes only two tapes are necessary. The meso-appendix is now elamped off from tip to base, and as it is cut the tapes are loosened and removed. They lie outside the abdomen and with care there is no danger of their being lost. The subsequent steps of the operation are naturally varied to fit the needs of the case. The article is illustrated.

SEBORRHEIC KERATOSES.

R. L. Sutton, Kansas City, Mo. (Journal A. M. A., January 30, 1915), says that few physicians appreciate the important part played by seborrheic keratoses in the production of cancer. A material, if not essential, factor in the causation of both basocellular and prickle-cell cancer is a peculiar quality of skin, which may be inherited, but is usually acquired, and is characterized by harshness or dryness, with more or less long-standing dry seborrhea. Age is an important factor in its production, and long-continued exposure to strong sunlight and sudden changes favor it. The so-called "sailors' skin" is not confined to those who follow the sea, and it is probably more frequent on the plains of Kansas than on the Newfoundland banks. Clinically, seborrheic keratosis begins as small round or oval brownish macules, especially on the face, scalp, trunk, and especially the intrascapular and sternal regions and the backs of the hands. When fully developed, the growths are flat-topped, papular elevations, usually oval in outline, yellowish, grayish, or brownish in color, sharply circumscribed and formed with a firmly adherent crust, which is usually greasy and velvety on the trunk or scalp, and harsh, rough and dry on the face and hands. When the crust is carefully removed, its undersurface often shows many tiny projections, which formerly projected into mouths of the skin follicles. Apparently they may have been caused by some slight injury of the skin. They never disappear spontaneously, and may persist indefinitely without change. But

generally, especially if irritated, the bases of them undergo further pathologic changes, and continuing, become malignant, causing prickle-celled cancer. The histology has been disputed, and the exact nature of the growth must be considered as still unsettled. The disorder is a common one in the Middle West, but it has been a little difficult to obtain specimens and Sutton has been able to obtain only thirty-four pieces of tissue from thirty-one different persons, all private patients, which are briefly summarized. After examining sections from a dozen or more of these, he found that the growths could be roughly separated into three distinct groups; first, and most important, a keratoid variety; second, a nevoid type, partly identical with Unna's *naevus seborrheicus*, and third, a verrucose form with considerable hyperkeratosis, very pronounced acanthosis, active proliferative changes and an enormous papillary hypertrophy. These wart-like specimens showed inflammatory changes of subacute nature; capillary dilation, small leukocyte collections, and round and plasma cells in the upper derma. Some of the more advanced keratoid tumors bore a decided structural resemblance to early Roentgen ray burns. The sebaceous glands were practically normal in all of these cases, and most abundant in the nevoid tumors. Of the thirty-four specimens, nineteen were of the keratoid variety, eleven of the nevoid and four of the verrucose. As regards prognosis, the keratoid lesions are by far the most dangerous, nine of the nineteen patients having cancer symptoms. Some special factors in one of the cases are noted. It occurred on the eyeball, and is the only case of the kind reported, so far as Sutton knows. The patient's sight was not impaired, and there were no signs of malignancy, and the tumor did not recur on removal. The lack of involvement of sebaceous glands would seem to make the name given a misnomer, but the objections cannot be sustained, Sutton says, if we accept the term seborrheic in the broad sense in which it is generally used. He believes that the anomaly of secretion of sebaceous glands is the primary cause. Montgomery and Culver have called attention to the effect of injection of large quantities of butter fat on these glands, and it is not improbable that other substances have like effect. As regards treatment, the earlier keratoid lesions are readily removed by frequent applications of a bland grease,

such as rose water ointment, and recurrence may be prevented by similar application, provided hard water and high alkaline soaps are not used. Men whose faces are affected should never shave with a dull razor, and after shaving, no soap should be left on the skin. The other varieties are not resistant to treatment, and he recommends the ointment of salicylic acid one part, sulphur one part, and petrolatum thirty parts, as recommended by Montgomery and Stelwagon. Of the caustics that have been recommended, none, in his opinion, equals Pusey's carbon dioxid snow. One thorough freezing with moderate pressure of thirty seconds to a minute is usually all that is required. The lesion is then bathed with tincture of iodine, and thymol iodid, U. S. P., or some like antiseptic. If a bulky dressing is objected to, a 5 per cent solution of ammoniated mercurial ointment may be prescribed. If the growth has become malignant, the treatment is that of cancer of the skin, and radical excision is to be preferred in most all localities. On the face good results can be often obtained by the use of Roentgen rays, or radium. The following are Sutton's conclusions: "Seborrheic keratoses are the most frequent of all forerunners of prickle-cell cancer skin. In their production, age and exposure to sunlight and to wind are important factors. The lesions are of three types, keratoid, nevroid, and verrucose. The keratoid are the most liable to become carcinomatous. The best plan of treatment is prophylactic. Failing this, the removal of the superficial layers of the growth by means of a keratolytic, followed by thorough freezing of the base with carbon dioxid snow, is the method of choice. Lesions which already exhibit signs of malignancy should be excised. If for cosmetic reasons, excision is inadvisable, Roentgen therapy or radium may be tried. Under no circumstances should silver nitrate or other superficial caustics be employed. Every person presenting the symptoms of seborrheic keratosis, particularly if the lesions be of the keratoid type, should be warned of the danger incurred by neglecting treatment. Carcinomaphobia is to be deplored, but wilful negligence is inexcusable." The article is illustrated.

Propaganda for Reform.

STOMACH BITTERS.—Experiments conducted by A. J. Carlson and his co-workers at the University of Chicago show that the widespread use of bitter drugs as a means of stimulating the appetite or aiding digestion is a therapeutic fallacy. He finds that such drugs as gentian, quassia, calumba, hops, condurango and the elixir of quinin, strychnin and iron do not increase hunger contractions of the stomach and the related phenomenon, nor induce increased secretion of hydrochloric acid or pepsin (*Journal A. M. A.*, January 2, 1915, p. 58).

BANNERMAN'S INTRAVENOUS SOLUTION.—This solution was refused recognition by the Council on Pharmacy and Chemistry because vague, indefinite and misleading statements were made regarding its composition, because it was recommended for anemia, tuberculosis and syphilis under grossly exaggerated and unwarranted claims, and because the intravenous injection of complex and indefinite mixtures is unscientific and dangerous. The proprietors having submitted to the council a revised statement of composition and a revised advertising circular, Bannerman's Intravenous Solution was again refused recognition, partly because the statement of composition was unsatisfactory, but mainly because of the unscientific character of the solution and the unwarranted therapeutic claims which are made for it (*Journal A. M. A.*, January 2, 1915, p. 70).

PRUNOIDS.—Prunoids (Sultan Drug Company) are tablets said to be "made of phenolphthalein (one and one-half grains in each), *carcara sagrada*, de-emetinized ipecac and prunes." The A. M. A. Chemical Laboratory reported that Prunoids appeared to be essentially a phenolphthalein tablet. The Council on Pharmacy and Chemistry held Prunoids in conflict with its rules because the statement of composition was incomplete and therefore meaningless; because unwarranted therapeutic claims are made for them; because the name "Prunoids" does not indicate the chief constituent, but gives the false impression that they depend on prunes for their effect, and because it is irrational to

prescribe a well-known drug under a misleading name (Journal A. M. A., January 2, 1915, p. 71).

SEDOBROL "ROCHE."—Sedobrol (Hoffman LaRoche Chemical Works) is stated to contain "17 grains sodium bromid, 1.5 grains common salt, fat and seasoning," and to furnish "on solution in hot water, a very palatable bouillon." The advertising "literature" advocates its use for stage fright and arteriosclerosis, and recommends the use of a large dose of bromid in the guise of a cup of bouillon in many conditions. It is even recommended to use Sedobrol in place of salt, simply to flavor food. The Council on Pharmacy and Chemistry held that Sedobrol "Roche" was unscientific, that unwarranted therapeutic claims were made for it, and that there was evident intention to mislead both patient and physician into useless and pernicious medication (Journal A. M. A., January 2, 1915, p. 71).

ECHTISIA, ECHTHOL AND ECHITONE.—Ech-tisia (William S. Merrell Chemical Company), Echthol (Battle & Company) and Echitone (Strong, Cobb & Company) are proprietaries, each of which has echinacea as its chief constituent. In 1909 the Council on Pharmacy and Chemistry reported that the extreme and extravagant claims which are made for this drug are not supported by evidence. Echinacea is not often prescribed under its own name, but is commonly employed in the form of proprietaries which, in addition to echinacea, contain other little used or obsolete drugs. To call attention to the unwarranted and often absurd claims which are made for this class of mixtures, the council reports on three of these: Ech-tisia, which is said to be made from echinacea, wild indigo, arbor vitæ and poke root; Echthol, which is said to be made from echinacea and arbor vitæ, and Echitone, which is stated to represent echinacea, pansy and blue flag. In each case it was found that most or all the extravagant and impossible claims which have been made for Echinacea were made for the proprietaries, and that in addition almost equally extravagant claims were made for the additional drugs contained in them (Journal A. M. A., January 2, 1915, p. 71).

THEOBROMINE VS. CAFFEINE.—Lester Taylor finds that caffeine gives a moderate relief from the cardiac symptoms in myocar-

dial insufficiency, but also causes the constant appearance of distressing nervous and gastric symptoms. He further finds that the clinical diuretic action of caffeine may be better performed by large doses of theobromin sodium salicylate, N. N. R., without the unpleasant side effects (Arch. Int. Med., December, 1914, p. 769).

NEUROSINE, DIOVIBURNIA, GERMILETUM AND PALPEBRINE.—The Council on Pharmacy and Chemistry reports on Neurosine, Dioviburnia, Germiletum and Palpebrine, shotgun proprietaries typical of the polypharmacy of past decades, put out by the Dios Chemical Company, St. Louis.

Neurosine is said to contain in each fluid ounce "bromid of potassium, C. P., 40 grains; bromid of sodium, C. P., 40 grains; bromid of ammonium, C. P., 40 grains; bromid of zinc, 1 grain; extract lupulin, 32 grains; cascara sagrada, fl. ex., 40 minims; extract henbane, .075 grain; extract belladonna, .075 grain; extract cannabis indica, .60 grain; oil bitter almonds, .060 grain; aromatic elixirs." No physician would think of prescribing all of the drugs in Neurosine for any one condition. The Dios Company urges the use of this nostrum for a host of conditions and without due consideration of its potent constituents. Not content with recommending the promiscuous use of this already too complex mixture, the Dios Company advises physicians to combine it with other drugs.

Germiletum is a member of a large class of alkaline antiseptics with excessively complex formulas. The formulas on different styles of Germiletum labels and circulars vary so much that one cannot tell what composition the exploiters of it intend to claim for their nostrum. Germiletum is recommended in many conditions and in a way to lead the physician to place false confidence in it.

According to the label, every fluid ounce of Dioviburnia contains "three-quarters of a dram each of the fluid extracts, viburnum prunifolium, viburnum opulus, dioscorea villosa, aletris farinosa, helonias dioica, mitchellæ (sic) repens, caulophyllum thalictroides, sentellaria laterifolia." The label also declares that Dioviburnia contains 18 per cent of alcohol. As the named fluid extracts in the quantities given require a much larger content of alcohol in Dioviburnia, either the alcohol statement or the formula is incorrect. This complex preparation of drugs generally considered worthless is recommend-

ed by extravagant and unwarranted claims for a large number of widely differing female disorders. In a way the Dios Company seems to recognize the inefficiency of Diovi-burnia, for it frequently suggests that it be used in combination with drugs of known value.

Palpebrine is claimed to be a solution of stated amount of morphin sulphate, zinc sulphate, mercuric chloride, boric acid and salicylic acid. It is termed "A Reliable External Ocular Antiseptic." It is asserted that "with the assistance of Palpebrine the general practitioner can successfully treat all cases of external eye diseases ordinarily encountered in his practice." Even more dangerous is the recommendation of Palpebrine for the prevention of ophthalmia in the newborn (Journal A. M. A., January 9, 1915, p. 165).

HAYDEN'S VIBURNUM COMPOUND.—This preparation, according to the advertising matter, depends for its action on viburnum opulus, dioscorea villosa and aromatics. The label admits the presence of 50 per cent alcohol. Its use is advised in the treatment of female disorders, cramps, etc. A report of the Council on Pharmacy and Chemistry states that, even if it contains the ingredients claimed (it has been reported that viburnum opulus has not been on the market for years), the therapeutic action of the preparation depends almost entirely on the alcohol which it contains. The council fears that the use of this preparation may initiate the alcohol habit in girls and women, and publishes its report as a protest against its use (Journal A. M. A., January 23, 1915, p. 359).

PEEBLES' EPILEPSY CURE.—The Dr. Peebles Institute of Health, Ltd., Battle Creek, Mich., advertises an "epilepsy cure." The "treatment" was examined in the A. M. A. Chemical Laboratory. It consisted of two bottles, "No. 1" and "No. 2." "No. 1" was a liquid containing extractive water, had an odor resembling celery and valerian and contained 11.40 per cent absolute alcohol. "No. 2" was a liquid, having a valerian-like odor and containing as essential constituents ammonium bromid and potassium bromid, equivalent to 16.8 grains potassium bromid, per fluid dram, the recommended dose. Thus the treatment consists essentially of bromides and is in no sense a cure and not free from

danger (Journal A. M. A., January 30, 1915, p. 455).

RADIO-REM.—The Radio-Rem outfit is advertised by Schieffelin & Company. It is said to produce water charged with radium emanation by inserting rods stated to be coated with radium sulphate in water. Not only is the internal use of radium emanation without proved value, but the amount of emanation said to be produced by the apparatus is far below the amounts generally used by those who believe in its efficacy. It is claimed that this outfit supplies a substitute for natural mineral water, but there is no proof that the value of mineral waters depend on contained radium emanation (Journal A. M. A., January 30, 1915, p. 456).

G. G. PHENOLEUM DISINFECTANT.—This is a disinfecting solution sold by the G. G. Phenoleum Company, New York. It was found ineligible for New and Nonofficial Remedies by the Council on Pharmacy and Chemistry because unwarranted claims were made for it and because the disinfectant power was not stated on the label, as required by the council (Journal A. M. A., January 30, 1915, p. 456).

PHYTIN AND FORTOSSAN.—Phytin, sold by A. Klipstein & Company, New York, is an organic phosphorous compound, the acid calcium-magnesium salt of phytinic acid. The Council on Pharmacy and Chemistry rejected Phytin because unwarranted and exaggerated therapeutic claims were made for this product, based on the entirely undemonstrated assumption that phosphorus is assimilated only from organic combination, that a long list of diseases are due to deranged phosphorous metabolism, and that such diseases are benefited or cured by Phytin. The council also refused recognition to Fortossan, a preparation of phytin and sugar of milk (Journal A. M. A., January 30, 1915, p. 456).

VENARSEN.—Venarsen, marketed by the Intravenous Products Company for the treatment of syphilis, pellagra, tuberculosis, anemia, etc., is a secret preparation. One circular suggests that Venarsen is a sort of an improved salvarsan, but in reality it gives no clue whatever as to the real character of the preparation. Another circular suggests that Venarsen is a shotgun combination containing arsenic, mercury and other anti-syphilitic

ic drugs. It is not only the right, but the duty, of physicians to know the essential composition of what they prescribe; a physician who uses a remedy the composition of which is kept secret, even in part, is not doing his duty to his profession nor to his patient. It is almost criminal for physicians to use a preparation of secret composition and to administer it by intravenous injection—a method which in itself is altogether likely to give rise to accidents (Missouri State Medical Journal, January, 1915).

County Societies.

POPE COUNTY.

The annual banquet given by the Pope County Medical Society to its members and visitors was held at Russellville Wednesday evening, January 20, 1915. Present: Drs. Charles S. Holt, Fort Smith; W. A. Snodgrass, Little Rock; W. F. Smith, Little Rock; C. D. Clark, Morrilton; Earl Hunt, Clarks-ville; J. F. Bradley, Lamar; B. N. Manly, Lamar; T. E. Burgess and A. W. Rye, London; H. F. Spillers and E. A. Milligan, Scottsville; J. R. Linzy, Dardanelle; R. M. Drummond, J. F. Hays, J. M. Campbell, J. W. Powell, R. L. Smith, T. S. Burgess, L. D. Berryman, B. C. Tubbs and L. Gardner, Russellville.

After the banquet the society met in the city hall, where an excellent medical program was rendered, including papers read on "Infections of the Gall-Bladder," by Dr. W. A. Snodgrass, Little Rock; "Surgical Hints," by Dr. C. S. Holt, Fort Smith; "Fractures and Their Treatment," by Dr. W. F. Smith, Little Rock. After a free discussion of the papers the meeting adjourned. Dr. Linzy invited all present to attend a meeting of the Yell County Medical Society to be held at Dardanelle, 1 p. m., Tuesday, February 9.

FRANKLIN COUNTY.

(Reported by Thomas Douglass.)

The Franklin County Medical Society held its regular meeting January 5 with Dr. Blackburn, its vice president, in the chair, our president, Dr. G. D. Warren, being in the Sparks Memorial Hospital with appendicitis. He was operated on by Dr. Cooper and is now well and again in active practice. There were present at the meeting Drs. Post, Rambo, Williams, Vaught and Douglass. Dr. Vaught was elected to membership.

On motion of Dr. Williams, the affair of Dr. J. L. Greene and the Hospital for the Insane was discussed. Everybody present had a good opinion of Dr. Greene.

The program for last meeting was continued for the next.

INDEPENDENCE COUNTY.

(Reported by S. A. Drennen, Sec'y.)

The Independence County Medical Society met in regular session at Batesville February 1, 1915. Members present, twelve. After reading of the minutes the following resolution was offered and unanimously adopted:

"Whereas, The appropriation bill for maintenance of the Medical Department of the University of Arkansas has been indefinitely postponed as the result of a motion by our senator,

"Therefore, we the Independence County Medical Society memorialize said senator to recall his motion and to use his influence and co-operation for passage of same, that the State of Arkansas may not take a backward step in scientific medical education."

Papers were read by the following members: Dr. Rodman, "Malignant Disease of the Uterus;" Dr. Moore, "Pneumonia of Young Children;" Dr. Dorr, "Pituitary Gland and Its Therapeutics."

After a very thorough discussion of the above papers the meeting, on motion, adjourned to meet again April 5.

MONROE COUNTY.

(Reported by P. E. Thomas, Jr., Sec'y.)

The Monroe County Medical Society met in regular session at Clarendon, 1:30 p. m., Wednesday, February 3, 1915.

A very interesting paper was read by Dr. T. J. Stout of Brinkley, entitled "Chronic Posterior Urethritis." Discussed by Drs. N. E. Murphy, J. C. Miller and P. E. Thomas, Jr.

The society voted unanimously that we entertain the Third District Medical Society, and Dr. McKnight has been instructed to invite them to meet with the Monroe County Medical Society at Brinkley. This place affords hotel accommodations equal to any in the state, which, together with the railroad facilities, will provide amply for all who may come.

After a business session the society adjourned in due form.

We hope to have a big meeting in Brinkley next month, and every time thereafter.

Book Reviews.

STUDENTS' MANUAL OF GYNECOLOGY.—By John Osborn Polak, M. Sc., M. D., F. A. C. S., Professor of Obstetrics and Gynecology, Long Island College Hospital; Professor of Obstetrics in the Dartmouth Medical School; Gynecologist to the Jewish Hospital; Consulting Gynecologist to the Bushwick, Coney Island, Deaconess' and Williamsburg Hospitals, Brooklyn, and the Peoples Hospital, New York; Fellow American Gynecological Society, etc. 12mo, 414 pages, illustrated with 100 engravings and nine colored plates. Cloth, \$3.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1915.

There is a refreshing quality of conciseness about this work in which, while overlooking no item of essential and definite knowledge in the field of diseases peculiar to women, the author carefully avoids excursions into the realms of obstetrics and abdominal surgery and avoids the consideration of the theoretical aspects of his subject.

The plan and arrangement is orderly to a marked degree. The opening chapters deal with the physiology of the various genital organs, with puberty, menstruation, ovulation and menopause, with discussion of hygienic considerations. Chapters on general gynecological diagnosis serve as an introduction to the detailed consideration of the various gynecologic operations to which the book is largely devoted. Under each disease the pathology, the symptoms, diagnosis and treatment are presented fully and in sequence. Salient facts are emphasized. The full directions for treatment are a feature of marked value, and embody the best present-day practice.

INFANT FEEDING, ITS PRINCIPLES AND PRACTICE.—By F. L. Wachenheim, M. D., Attending Physician Sydenham Hospital and Mount Sinai Dispensary, New York City. 12mo, 340 pages. Cloth, \$2.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1915.

In the preliminary chapters a clear presentation of facts regarding infant digestion and metabolism opens the way to easy grasp of the detailed information. A point of interest is the author's demonstration of the extent to which the capacity of the infant's stomach is underestimated. Enlightening data is presented regarding protein, carbohydrate, salt and particularly fat metabolism. After reviewing fully the problems of breast feeding Dr. Wachenheim concludes that even in cases of serious digestive derangement, if the supply is adequate, the only safe procedure is to keep the child at the breast.

The bacteriology of milk; milk infection; the constituent elements of cow's milk and the essential difference between it and hu-

man milk; milk regulation and the feeding of whole milk, are treated at length. While the basis of the discussion of milk modification is highly scientific, the reasoning is so logical and the conclusions so clearly stated that the practitioner cannot but find this section useful when called upon to draft a series of formulas, while the specialist will find herein much interesting new material based on the author's study and observation.

He rejects top milk method as inaccurate, as well as characterized by inherent defects. He also makes out a strong case against the percentage method, and recommends the Jacobi system of simple dilutions. The formulas presented are readily adaptable to the individual requirements of the case in hand. The cause, symptomatology, diagnosis and treatment of digestive and metabolic disorders are considered at length. A section on the feeding of older infants up to four years brings the work to a logical conclusion.

CHEMISTRY AND TOXICOLOGY FOR NURSES.—By Philip Asher, Ph. G., M. D., Dean and Professor of Chemistry at the New Orleans College of Pharmacy. 12 mo. of 190 pages. W. B. Saunders Company, Philadelphia, 1914. Cloth, \$1.25 net.

This book gives such logical teaching that it should prove of value to the medical student as well as the nurse. Following the introduction and nomenclature, the book briefly describes the nonmetallic and metallic elements; chemistry of carbon and its compound; physiologic chemistry and the pathologic constituents of urine, and also gives the various chemical tests.

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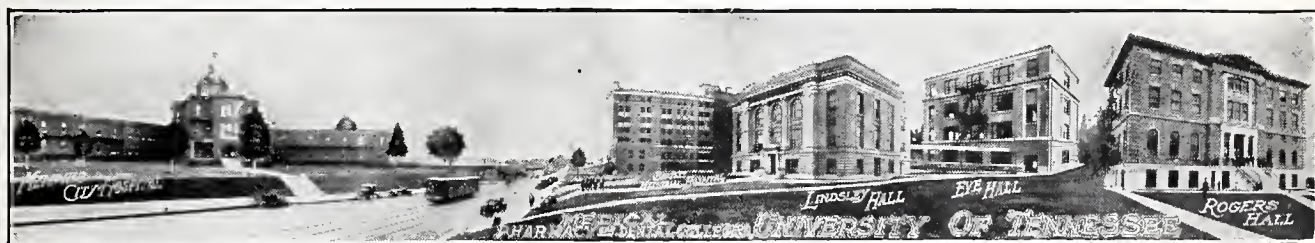
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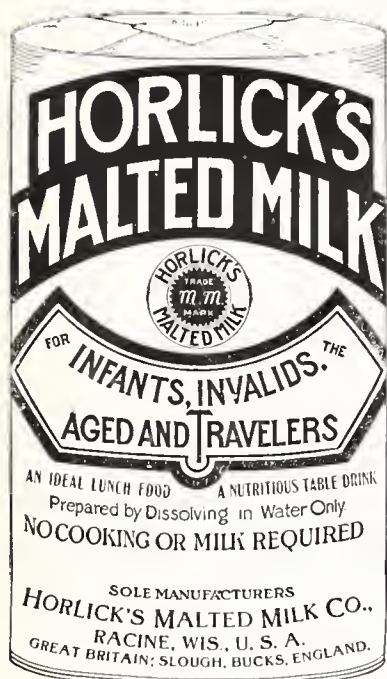
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No. 10

Original Articles.

RETRODISPLACEMENT OF THE UTERUS.*

By Robert C. Carlin, M. D.,
Fort Smith.

I have selected this subject, a common disease of women, with which you are all familiar, in order to give you all a chance to discuss the matter most freely and also to give you a fine chance to criticize my ideas on the subject. I anticipate just exactly what Dr. Cargile is going to do to me when he opens this discussion after hearing my ideas of the operation and the technic I invariably follow in these cases. It has been my good fortune to have been able to follow very closely for the past fifteen years the teachings of the "Grand Old Man Montgomery" of Philadelphia, and I have for the first time, since graduating, to go back to Philadelphia and find him doing the same operation for suspension that he was doing on a previous visit. There must be some logical reason for this. Is it because one operation has not been entirely satisfactory that he changes so often, or is it merely to be doing something new? You will all agree with me that since the time of Christ, or in the days of Galen, the uterus and appendages have been made of the same stuff, and I contend that if a round ligament will stretch on Tuesday, it will do the same on Friday. Therefore, I think it advisable to manufacture a new ligament rather than use one that has already thrown its old friend, the uterus, down. Holt, with all the enthusiasm of youth, and Cooper, with all the complacency of old age, will not believe this, but I consider it true nevertheless.

*Read before the Section on Surgery of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

The cases in which suspension by any of the one thousand different methods will do the most good are the cases in which the retroflexion is either of the second or third degree. By second degree I mean where the uterus lies transversely across the pelvis, and by third degree, where the uterus lies with its fundus in the hollow of the sacrum. For convenience of clinical description and from the standpoint of treatment, retrodisplacement is divided by most authorities in two classes, acute and chronic. Acute displacements are those which follow immediately upon parturition or are caused by accident and are always discovered within six months.

The chronic cases are those which have existed for more than six months or were present as a congenital condition. The former are rare, the latter a most common condition.

In the chronic form the uterus and its appendages lie in a dependent position, the broad ligament is twisted more or less upon itself and this causes a stasis of the blood supply. This stasis, of course, causes a passive hyperemia, the passive hyperemia causes certain secondary pathological changes which are always found in a uterus, and its appendages that have been retroverted for any great length of time. The weight of the uterus is increased and the appendages also undergo hypertrophy, and that is the reason I have for saying that you are not using a good guy rope when you try to anchor the uterus with a round ligament that has undergone a pathological change and which is liable to undergo more of a change by the further interference with its blood supply.

From these pathological changes which have taken place in the uterus, and appendages, we can account for the symptoms and chronic invalidism we see in this class of cases.

If a careful clinical history of a woman suffering from chronic retroversion or retroflexion be taken, comparing the state of her health before the time the condition occurs, with her condition afterward, it will be apparent that a comparatively small lesion in the pelvis will cause a world of trouble with the patient's nervous system. Thus a woman may give the history of a long period of nervousness, nervous prostration or neurasthenia, and her pelvic lesion will be entirely overlooked by her physician.

A clinical history carefully taken searching for the cause of these headaches, backaches or nervousness is most important in determining the presence of a backward displacement, and a pelvic examination and logical treatment should be begun at once. Among other symptoms that may be mentioned are physical weakness, inability to walk or stand for a long time, with a feeling of weight and dragging in the pelvis and pain over the ovarian region.

Sometimes menorrhagia, leucorrhea and dysmenorrhœa result from the hypertrophy of the uterus and glandular endometritis.

Regarding the diagnosis, I have very little to offer. In the first place, no examination should be made without the assurance that the bladder is entirely empty, as a full bladder will oftentimes produce a retroversion of the second degree. The patient should be placed in the Edebohl's position with her thighs flexed to an extreme degree upon her abdomen and the legs held in Edebohl's leg-holders, her buttocks being down on the edge of the table. Through this position the greatest relaxation of the abdominal muscles is obtained and the examination can be carried on with a great deal less pain and discomfort to the patient.

Another point to be remembered is the fact that a woman may have a second degree displacement one day and the next time she is examined the uterus will be forward in normal position. While this does not occur often, it is well to be on guard, as these cases can be cured in a short time by the use of a well-fitting pessary.

The treatment of retrodisplacement, in my opinion, is purely a surgical one. If a woman had absolutely nothing to do but sit around the house, I suppose a pessary would cure a few cases; but for a woman living more or less of an active life I mention the pessary only to condemn it. And now comes the bone of contention.

I believe the simple ventrosuspension—that is, hanging in the uterus up to the anterior abdominal wall—to be the operation of choice. It is true that a good many men will tell you that it is no operation to do on a woman during the child-bearing period, stating that it will make labor difficult or impossible, or because of the suspensory ligament not stretching with the growth of the uterus it will make an abortion inevitable; I maintain that if the operation be properly done none of these complications will occur. Several years ago I saw a man do a suspension on a woman two and one-half months pregnant, and I delivered her at term, she having a perfectly normal labor with the exception of it being a trifle slower than normal.

OPERATION.

An incision one and one-half to three inches is made in the anterior abdominal wall, in the median line, immediately above the pubes. After the fascia of the rectus is separated, care is taken to make the rest of the incision through the body not far from the edge of the rectus muscle and not through the linea alba. The fingers are placed in the cavity and the fundus is brought up. The plane of the abdominal incision is exposed and a curved non-cutting needle threaded with No. 3 twist silk is passed through a few fibers of the muscle structure and peritoneum of one side immediately above the angle of the incision. The needle is then passed through the uterus transversely just posterior to the intertubal line. The amount of the uterine tissue penetrated is accurately three-eighths of an inch broad and one-eighth of an inch deep. The needle is then passed through the same structures on the opposite side of the abdominal wall. A second suture is passed through the same way, a quarter of an inch higher up and traversing the uterine wall one-quarter of an inch farther back. While the uterus is held firmly against the anterior abdominal wall by the finger of an assistant, these sutures are tied so the fundus will remain in the above position. Care must be exercised in tying these sutures, as they will cut out if tied too tightly. The abdominal incision is then closed in the usual manner.

Now the staunch supporters of this method claim this: They say that with the inclusions of these amounts of muscle tissue—that is, of the rectus muscle, the peritoneum and the uterine parenchyma—the silk sutures after a period of a few weeks are found to have

dragged out a ribbon-shaped fold of tissue consisting of peritoneum and a little muscle fiber from the anterior abdominal wall and a similar fold of peritoneum and muscle fiber from the uterus, so that in time the uterus becomes attached by a slight pliable ligament from one to three inches in length. Now, by virtue of the fact that this ligament is composed of new healthy muscle, peritoneum and some connective tissue, it is very yielding and undergoes a relative hypertrophy and hyperplasia with the uterus during pregnancy, and, being superficially attached to the uterus, cannot hinder its growth. Further, these gentlemen believe that it undergoes involution during the puerperium and continues its function as a guy rope, which, to my notion, sounds reasonable, as part of the guy rope is made up of uterine tissue.

DISCUSSION.

Dr. I. J. Newton (Monroe, La.): The suspension of the uterus is like the history of the world. I don't know whether I can talk on that subject much or not. It has been undergoing evolution after evolution, and I rather think we are in the glacial period, as to suspension operations, at the present time. I have tried many of them, and fall out with them as fast as I do them, and the doctor's operation is as good as any, and it certainly has been described almost like looking at it. If he performed the operation as neatly and nicely as he described it, I take my cap off to him. There is one feature about the suspension operations that I believe we do not take into consideration, and that is the associated diseases. In the first place, many of those cases consist of multiple ptoses, and then again we have a septic condition of the uterus that causes descensus. Mere suspension does not correct that. Then, we have associated gall bladder disease, associated chronic appendicitis, and various other conditions of that sort that go hand in hand with this diseased condition, and the operation is primarily a failure simply because you have made a neat, nice surgical operation of the uterus, suspended it properly and accurately, and yet you do not get the aimed result, and I believe the cause of our failures is that we have not gone far enough and extensively enough in our surgical procedure. Where mere suspension is required, it does not matter whether we do the old Kelly suspension, the Gilliam or the Kellogg operation, or any of the modifications; they all suspend all right, and they hold all right. I do not know which one of the various operations I should prefer, although in many instances in our operative procedure we will have to do a suspension operation. I cannot say that I am allied, nor have I any convictions as to any special operation on this point. Like the doctor he mentioned, I have performed the operation, patient later becoming pregnant, and went on to full term delivery without any trouble at all.

Dr. Carlin (Essayist): I have nothing further to add, except to say that failures are bound to occur occasionally on account of the gas distension and several other complications that arise immediately after the operation, causing the ligatures to pull out before the ligaments form.

REPORT OF THREE UNUSUAL CASES.*

By R. H. T. Mann, M. D.,
Texarkana.

CASE NO. 1: Male, fourteen or fifteen years of age, seen with Dr. Dale of this city. He gave the following history:

Three years before, while holding a brass-headed tack in his mouth, he laughed and the tack suddenly disappeared. An examination at this time revealed nothing. The *x*-ray was not used. He suffered little or no inconvenience for nearly three years, when a cough developed and his father sent him to Colorado Springs, fearing that he might have tuberculosis. Dr. Webb of Colorado Springs, by means of a radiograph, located a foreign body in his right bronchus. He referred him to the Mayos; the Mayos also located the tack in his right bronchial tube, but the surgeon who performed their bronchoscopy was not in Rochester. The boy's father knew that I was doing considerable work of this kind, so he decided to bring his son home for treatment. We did a tracheotomy on this boy and the next day I introduced the bronchoscope into his right bronchus, but after searching for nearly an hour I failed to find any evidence of the tack. On introducing the tube into the left bronchus, however, I discovered a black caseous mass; in this mass I located the tack and succeeded in removing it with little or no difficulty. The patient made an uninterrupted recovery and since that time has been entirely well.

CASE NO. 2: A gentleman was brought to me with this history: About twelve years before he had an abscess in his ear, which had continued to discharge since that time. When I saw him he was having temperature vertigo and complained of failing vision. An examination of his eyes revealed a high degree of choked disk; the choked disk was more marked on the side of the diseased ear. I did a radical mastoid on this man, also drained his labyrinth. I next exposed the cranium an inch and one-half above the auditory canal. After the dura was opened an exploratory incision was made into the brain to the depth of about an inch, but no pus was found. About an inch and three-quarters back of the auditory canal this procedure was repeated

*Read before the Section on Surgery of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

with like results. My patient died within the next few days and I succeeded in obtaining an autopsy. Between one-eighth and one-fourth of an inch beyond my cerebellar puncture, a large abscess was found.

CASE No. 3: I was called to Pittsburg, Tex., in the early days of September to see a boy who gave the following history: Nine months before he had had measles. He had also had an abscess in his left ear and a mastoid operation was performed by an aurist in Dallas. The mastoid wound had healed without incident; the boy, however, continued to complain of great pain in his head and spent most of the time in bed. For quite a while before I saw him he had been losing his vision, and during the last few days he had not been able to see at all. He had a slight pupillary reaction in his right eye. In his left eye on the side where the mastoid had been performed, he had neither perception of light nor pupillary reaction. I examined him very carefully with the ophthalmoscope and found marked choked disk with beginning atrophy in each eye. This boy weighed, when taken ill, about one hundred pounds; at the time of the examination he weighed about fifty pounds. I recommended that a decompression operation be performed to relieve the intracranial pressure, hoping thereby to preserve some vision until definite localizing symptoms should appear. I did this decompressing operation an inch and one-half above the auditory canal; after the dura had been opened, a large white mass was disclosed; this proved to be a very extensive brain abscess which was evacuated. The boy made a gradual recovery, but his vision has not been restored.

DISCUSSION.

Dr. Cox (Helena): In a number of these little patients who have had eruptive fevers, we find these complications of brain abscess. Frequently they follow measles and smallpox, and often terminate in a fatality. I regard this paper as a very valuable contribution to the program. I do not feel competent to discuss it, however; but I believe a man can do a good deal by careful observation and supervision of the complications following these maladies. If we can prevent a case we shall have done well.

Dr. Mann (Essayist): I believe there is a great future for brain surgery in this section of the country. I asked one of our leading neurologists this year if any brain operations were being performed, and he said there were none in this state so far as he was aware, except for fracture. He mentioned a recent case in which he took the bone off and removed a portion of the brain. I feel like a good deal could be accomplished and that many of these cases could be relieved. I feel like it is a field that probably needs cultivation. Murphy thinks it will be of value in the treatment of sarcoma.

A FEW ESSENTIAL HINTS TO SUCCESSFUL SURGERY.*

By Charles S. Holt, M. D.,
Fort Smith.

These few hints are intended to deal but slightly with mechanical surgery, because we feel that mechanical surgery is already well cared for and many times at the expense of other features just as important. We too seldom read or hear anything on the subject of surgery, except along the line of whose operation to perform, whose stitch to use, whose especially devised instrument is best, and a report on the last five hundred cases of laparotomy done by someone else, until we could be led to believe that the consent of the patient, the amount of the fee and the mechanical part of the work covers the entire scope of successful surgery. But our experience has been such that our attention is compelled to the essential "little things" necessary to success, and, knowing that these conditions exist gives me the excuse for this paper.

I shall not attempt to say anything startling, nor to offer a single opposition to skillful operations, but rather will emphasize the present necessity for more attention to the minor details. No chain is stronger than its weakest link and we all know that there are many links in the chain of successful surgery.

Good surgery begins with the correct diagnosis and is often completed without the knife, because, unless from your diagnosis your prognosis can give a promise of life and an improved condition of well being for that patient, your surgical sense will cause you to refrain from operating.

We contend that the correct diagnosis, a just prognosis and experienced management of a case before and after operation, are not receiving their adequate share of attention as compared to the mere mechanical part of the operation. Just why the *operation* seems to carry more glory with it, I have often wondered.

It is a well-known fact that it requires years of hard work and actual experience to become a good diagnostician and a safe prognosticator and concerning the management of a case both before and after a surgical operation. There is a something born in a man or

*Read before the Iron Mountain Surgeons' Association Meeting at Little Rock, November 17-18, 1914.

woman that makes them not all alike when it comes to the management of the sick; a good nurse is like a musician—*born*, not *made*.

I grant you that your system of preparation is correct, that your diet is good and that your drugs are properly prescribed; but if **you want perfection**, have a nurse with that natural gift for handling the sick, for, with such a nurse, the management of a case before and after operating becomes easier and you will find much less need for hypodermolysis, heart stimulants or sedatives.

You will see fewer cases of death from shock, because this nurse will give your patient stimulants and sedatives by ear and by sight. With soothing words, confident aspect and gentleness of touch she will have your patient in good condition for the anesthetic, and with the same measures she will tide them through the period of shock.

Now as to the diagnosis—be sure you are right, and then go ahead with the prognosis. When the physician or surgeon is giving a patient or the family the prognosis in a case, he should be guided by his judgment and the Golden Rule. The diagnosis and the prognosis go hand in hand, and here is where the experienced eye, the skilled touch and common sense will accomplish a great deal for surgery.

How often have you seen a patient in your office with a slightly deformed but very useful limb, who tells you that had he listened to the doctor it would have been amputated years ago? Hence, we have the lesson to be slow to advise an amputation in compound fractures until we know that the limb cannot be saved.

In pelvic inflammation of gonorrheal origin, a surgical diagnosis is often made too early. I am sure that no doctor who has had experience with the "after clap" in treating these poor, sexless neurasthenics will be in a hurry to advise the knife as an early remedy for gonorrheal cellulitis. We too often see these patient sufferers led into the operating room where ovaries are removed by the bucketsfull, when, with proper rest, hot fomentations and a little opiates, she could have been saved these two valuable appendages. We should station the angel with the flaming sword at the pelvic gateway and save more ovaries. Just another good place to practice the Golden Rule.

We often see what is termed good surgery, when, if practiced on the surgeons themselves,

would be called by quite a different name. But we wish to add that while above the pubis there is no doubt too much operating, below the pubis there is not one-half enough. Perineal and cervical tears are too much neglected, and in time lead to neurotic conditions, tumors and malignancy.

Here is where "an ounce of precaution is worth a pound of cure."

Perforations other than gunshot wounds are seldom diagnosed in time to save the patient's life. Malignancy of the internal organs has usually done its fatal work before an operation is advised. Too many cases of indicated intubation or tracheotomy are allowed to become comatose and exhausted before the proper measures are applied. In fact, when it comes to a surgical diagnosis we have a most definite indication of the two extremes. First, those who only await the consent of the patient and the fee to advise the operation, let it be anything from a circumcision to the removal of a healthy appendix; and second, we have those who are too conservative and seem to prefer to have the patient die in one piece.

Hence, between the two extremes we can see the essential need of a correct diagnosis and a "Golden Rule" prognosis.

An experienced anesthetist is very desirable—one who not only knows how to keep the patient's tongue out of the throat, but who can always use his own in reassuring and soothing the patient's mind.

The laity seems to think a good surgeon very much the same as a good sculptor, solely mechanical in his work, but we know that our patient cannot be handled like a block of marble or granite. The attention of our profession has been held too long to the question of *how* to operate. We contend that the question of *when* to operate should be the one of importance.

Anyone who will visit a packing house in any of our large cities can see men disembowel a hog almost instantly without cutting a gut, yet these same men with all their skill would not know a sarcoma from a bunion.

Some other "little things" that lead to success in surgical work are proper attention to all the vital organs and especially the excretory organs. Proper diet both before and after operating—a good rule after laparotomies is to feed nothing by mouth till the patient is passing gas. In pus cases elevate the

head of the bead as much as ten to fifteen inches. In shock, hot water bottles, absolute quiet, elevate the foot of the bed and use saline enemas by the drop method as a heart stimulant. In cases of gaseous distension of the bowel, I prefer enemas to drugs by mouth; in fact, drugs, as a rule, have a very small field in surgical cases.

The saying "to know your anatomy" is as good as it is old, but is no better than to *know your patient*. The surgeon, the anesthetist and the nurse should each one know and appreciate the state of mind of the patient. They should have eyes that *feel* and fingers that *see*, and a tongue that soothes and stimulates.

If I seem to repeat myself on this one point I do so because I have seen apparent failures turned to success—and these essentials the *pivot*.

I am sure that no physician nor surgeon gives too much attention to the peace of mind of his patient. We believe in more tranquillity, absolute rest and the proper use of enemas—and thus have less need for strychnin and morphin, and fewer deaths following operations from so-called shock, heart failure, surgical pneumonia, etc.

APPENDICITIS.

A case of sciatica due to appendicitis is reported by B. M. Randolph, Washington, D. C. (Journal A. M. A., February 13, 1915). He is convinced that the initial attack of right-sided sciatic rheumatism in his patient was really an attack of acute appendicitis with peripheral pain in the sciatic nerve due to the proximity of the inflammatory foci to its fibers. Sciatica is a symptom, not a disease, as this case shows. From the examination of the specimen, there had evidently been an intra-appendicular abscess of long standing, causing a tension in its lumen. The removal of this tension by discharge of pus and inflammatory exudates left behind very little trace of the earlier acute inflammation.

During February the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Nonofficial Remedies:

H. K. Mulford Co.:

Cholera Serobaeterin.

Meningo Serobaeterin.

Typho Serobaeterin, mixed.

SOME THINGS TO BE REMEMBERED BY THE GENERAL PRACTITIONER.*

By G. E. Cannon, M. D.,
Hope.

The general practitioner needs and must have the greatest store of knowledge of any other class in the medical profession. He is called on to do almost everything in medicine, and he should be able to do it or know what to do, and suggest the wisest course for his patients. He has less time for study than the specialist, and many more demands upon him.

His body should always be kept strong and his mind most active, that he may grasp the opportunities that pass his way. He is often placed where help cannot reach him when he most needs it, and has to do the work of two men. In fact, he should be an Edison when it comes to work—a genius in mind and an athlete in body, coupled with a never forgetful store of knowledge and an indomitable will. To do this we must ever remember and guard the best we can the laws of health in regard to our own bodies. It is sad to see, sometimes, how the physician, who is supposed to be and should be an advisor for his community on health and morals, dissipate and lead a life of disgrace to himself and those of his friends. We are very proud, however, to note the great change for the better in this line in the last ten years. No other man has more influence generally in his section than the general practitioner. He should remember this and always be guardian for the homes that confide to him not only their ills, but their family troubles and those of their friends. How great is his responsibility!

Much could be said in relation to the general practitioner and the great moral questions, especially temperance, education and the social evil; but the main thing this paper meant to bring out is some practical points that will help us along in our every-day work.

Our first remembrance is that we are all imperfect, and that none of us know everything, and that we can learn from every man we come in contact with, even if it be the tramp that comes to our back door. Our fellow-colleague is just a human and we need

*Read by title before the Section on Practice of Medicine of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

to look over his little imperfections, and we should remember the Golden Rule when we have dealings with him. Occasionally we see a physician who has the custom of wanting everything and feeling that everything that comes in his path belongs to him, and that he knows everything; but everybody soon learns him. Social intercourse makes us love each other more, and by association we learn to love those that might otherwise be our enemies.

Remember in all cases that a correct diagnosis is the first thing. Take more pains in your examinations and take nothing for granted. Allow no one to make your diagnosis for you. Use all means at your hands and call in aid if you are not able to decide the case. A visit to the Mayos' clinic and see their careful diagnostic methods will give a fine lesson. Remember to always examine, at your first visit, a child's throat and lungs, especially during the winter season. Remember that the liver gets more unnecessary abuse than all the other organs of the body, and that so much purgatives is a serious mistake; that the stomach receives more slop than the kitchen slop pail, and things that are just about as filthy. Many of the so-called heart diseases are functional troubles caused from the stomach. Constipation is seldom, if ever, cured by purgatives or laxatives, and many rectums are chronically dilated by large enemas. Experiments have proven that it is almost impossible to introduce a rectal tube above the sigmoid. Always remember to not give a laxative when some pin, coin, tack or such substance has been swallowed, but give something to incorporate the foreign body, like sweet potatoes, so it may be carried on out of the bowel without injuring the interior of the bowel.

Remember that Von Pierquet's method of tuberculin test will diagnose tubercular cases long before the physical signs are manifest. Then by instituting intelligent treatment a great percentage of our cases are arrested before much damage is done. Fresh air and sunlight are essential things for the sick or well. Patients should consult their physicians early and save themselves much expense and suffering; for instance, when a case of follicular tonsillitis is seen early and each follicle is carefully mopped out with a ten per cent solution of carbolic acid in glycerin, the case is aborted and the patient saved much trouble.

Remember that serum therapy is rapidly and wisely coming into use and the physician who neglects it is going to retrograde. While very few products are as yet perfect, many are being studied, and none should let his prejudice prevent his using those tried ones such as the prophylactic use of typhoid vaccines.

Remember that electricity has its place in medicine and its place is a broad one. It is not advisable for any physician to buy many books on electricity, but every well-established physician should have some good work from some reliable author, and his office should be supplied with a wall plate where he can get the galvanic and faradic currents. Don't let someone persuade you that there is no benefit from electricity, and that only quacks use it. When we study the methods of the quacks, we find them using some good things, and electricity is one of them. No human or appliance of any kind gets so low but that there is some good in it, nor so high but that it has some bad in it. Most cases of sciatica yield very slowly to drugs, but get well in a pace when treated intelligently with the galvanic current.

Remember that surgery often gets a black eye from its results, because it is resorted to after everything else has failed. Surgical patients should be treated as such and at the earliest possible moment. All appendix operations should be done in the first twenty-four hours when possible. A delay in strangulated hernia, intussusception, bowel perforation from any cause, ruptured extra uterine pregnancy or lacerated perineum is criminal, and the doctor who waits for nature to take its course should be punished.

Remember that most cases of indigestion are caused from gall bladder trouble, appendicitis or gastric ulcer. That "change of life," the change from girlhood to womanhood, and teething in children are magnified and very much overstressed. Any woman who has any abnormality of blood from the uterus should be examined by a capable man; and we should all be capable of making a thorough examination of the female pelvic organs. Any case that has any suspicion of cancer of the cervix is entitled to an examination of a section of the affected part under the microscope by a competent pathologist. Too often cases are passed over lightly. I give this as an illustration. A young bride and her mother-in-law came to my office in

1908. Mrs. B., the Sr., said she had brought her son's wife, who had been married six months and was then nearly twenty-one years of age and had never menstruated. Her family physician, who had been her mother's physician for years, had never examined the girl when treating her for this condition. An examination was made, and to our surprise she had no vagina, ovaries nor uterus. Soon afterward, while in Shreveport, she submitted to the third operation to make her a vagina, and died there in a hospital as a result of the operation. An early examination in this case would have prevented a marriage, saved an operation, and possibly given the woman a long and useful life. Always examine your patients. If they will not let you examine them, let somebody else treat them. If you are undertaking the great responsibility of caring for the temple of the soul, do not neglect your duty toward humanity.

In labor cases, strive to be as careful of asepsis as if you were undertaking an abdominal operation. Let your examining hand touch nothing except the antiseptic solution and the genital tract. Examine as few times as possible, and when the afterbirth has been delivered and all perineal tears repaired and the hemorrhage ceases, give all the parts an antiseptic bath and dress with gauze and absorbent cotton and a T bandage with an abdominal supporter or binder, and do not leave until your patient is in a comfortable bed and everything is safe. If anyone ever needs clean, tender treatment, it is in childbirth. With these precautions midwives would give place to the careful physician and our country would have fewer motherless children. Just recently a woman was seen in consultation, who six weeks before had been delivered by a midwife. When they saw she was infected they called a physician. Examination revealed a large amount of pus in the pelvis, which had to be evacuated through the abdominal wall. She made a rapid recovery, but just think of the untold suffering she underwent and the great expense on her husband. All of this was caused by trying to save expense for the family and possibly because some physicians are no cleaner nor more careful than the midwives. Let us do our obstetrical work with more care and precision, and later we will have more obstetrical work to do.

As it is our duty and privilege to do much minor as well as major surgery, many things

could be known to aid us. Dr. Burnay's Golden Rules of Surgery is one of the best little books for practical information. Remember that quinin and urea or quinin alone in $\frac{1}{4}$ to 2 per cent solution is almost equal to cocain in results and far safer as a local anesthetic. It is perfectly safe and can be used in sufficient amounts to produce anesthesia in almost all minor surgical cases; opening all kinds of abscesses, including appendicular abscesses, interrib incisions in empyema cases (and I will say that this is usually all that is needed for draining the pleural cavity); amputations of fingers and toes and even hernia operations have been and can all be done under this local anesthetic. Remember to always save every part of hands, arms, feet or legs that can be saved when the question of amputation presents itself. It is an easy matter to amputate a mangled hand, but not always an easy matter to save one. Of all the dressings for mangled extremities, none beats one dram of carbolic acid and one or two ounces of magnesium sulphate to each pint of sterile water continuously applied. By such applications you will rarely ever see pus and will save many hopeless-looking cases. Don't forget that magnesium sulphate is one of our very best antiphlogistics and may be successfully applied to almost all inflammations, burns and injuries.

Remember to give your idle moments to study; be bold, yet conservative, and see what the best men over the country are doing. Spend your vacations every two or three years, at least, in one of our country's best clinics. Do your best at all times for yourself, your patients and your community, and you will have fulfilled your mission.

INFECTIOUS JAUNDICE.

The issue of the Public Health Reports of February 12 contained a report from Dr. L. J. Richards regarding an outbreak of infectious jaundice at Elizabeth, N. J.

Since then Dr. Youngman, health officer of Williamsport, Pa., has reported that during November and December, 1914, there were in Williamsport probably a hundred or more cases of this disease.

Dr. Edge has also reported that there was an outbreak in Stevens County, Georgia, beginning last November.

THE X-RAY IN THE DIAGNOSIS AND TREATMENT OF FRACTURES.*

By J. P. Runyan, M. D.,
Little Rock.

The diagnosis and treatment of fractures is a subject concerning which we are all interested. Probably more damage suits result from this class of cases than all others combined. It is not my purpose today to present a lengthy discussion on the subject of fractures, but merely wish to call your attention to one of the modern aids used in the diagnosis and treatment. I refer to the use of the *x-ray*. There is no discovery of modern times of so much benefit and satisfaction to the surgeon, both in the diagnosis and treatment of fractures, as the Roentgen ray. One thing much to be deplored, and which I hope will soon be overcome, is the fact that the *x-ray* usually is employed only in the unsatisfactory or unpromising cases rather than made a routine in the daily life of the general practitioner as well as the surgeon. It is surprising how much more satisfactory one's results will be after the adoption of the use of the *x-ray* as a routine in every case of fracture, both as to correct diagnosis and as an aid in the treatment. By its use many fractures will be discovered to exist which the ordinary means of diagnosis at our command will fail to elicit. On the other hand, many cases of so-called fractures of the ribs, by use of the *x-ray* will be found to be not fractures at all, only a contusion being present which may cause more or less pain upon pressure over that region. This becomes especially valuable to corporations who may be responsible to the patient for whatever injury may have been received and the amount of compensation often will be based upon whether the patient has a simple contusion or fracture. It certainly is important to the patient to know definitely what the nature of the injury is, as the treatment should and will vary with the severity of the condition found. In many cases I think practically it is impossible to say accurately whether there is or is not a fracture of a rib, without *x-ray* examination. I shall not enter into a discussion of the merits of bone plating in

fractures, but I want to urge the routine use of *x-ray* examinations of all cases of fractures to help to determine what cases demand the application of this method of treatment, and what cases may be treated without employing the plates.

Those of us who have not yet come to the indiscriminate use of bone plating in all cases of fractures may be guided by the *x-ray* as to which cases actually require the bone plate. All cases should be *x-rayed* for diagnosis, then again after approximation of the fragments and splinting to determine if the adjustment has been perfect, and from time to time until union is perfect, the frequency of such exposures to be regulated as the judgment of the surgeon in each individual case may dictate. Upon the routine use of *x-ray* in every case will depend the safety of the surgeon who treats fractures, as well as the best results to the patients obtainable. In this way one may foresee future deformities and correct them before it is too late. The patients thus will be saved many weeks of unnecessary disability and can clearly always be reconciled to the necessity of operative interference to secure perfect results. There is nothing more convincing to the patient, even of ordinary intelligence, than to show him a picture of his fracture with fragments overlapping after an attempt to reduce the deformity has failed to secure perfect adaptation. Such a patient, when told that every effort to properly adjust fragments has been futile, and nothing short of operative measures will avail anything, usually readily assents.

Do not forget the annual meeting of the Arkansas Medical Society, May 3-4-5-6. A preliminary program is published in this issue, and Little Rock's hospitality will assure a splendid welcome. Begin your arrangements now and be sure to come.

FOR SALE—One Wantz X-ray Coil, manufactured by the Victor Electric Company, one Western Coil, 16-inch, manufactured by the Schiedel-Western Electric Company. Both machines suitable for therapeutic and heavy radiographic work. In perfect condition, and at a reasonable price. Address, Dr. A. M. Zell, Bankers Trust Building, Little Rock, Ark. (Advt.)

*Read before the Pulaski County Medical Society in Little Rock, February 8, 1915.

THE RELIEF OF UTERINE INERTIA.*

By S. W. Douglas, M. D.,
Eudora.

I have had an opportunity in the last few years of observing the various methods and agents used to hasten labor. While many of them are useless in most cases, yet we would regret very much to have to do without them. In these long waits we want to have something that we can be doing to while away the time. The man that knows nothing to do soon will become unpopular, and his obstetrical practice will soon be on the wane. The popular man is the one that can deliver rapidly and with a minimum pain.

There have been rapid strides in the various branches of medicine in the last century, but progress in obstetrics has lagged far behind. We are now, as one hundred years ago, lectured on the favorite subject of Meddlesome Midwifery. "Let nature have her course" is yet a much-quoted obstetrical aphorism. It seems a travesty on the medical profession that there can be so little done to relieve the wails of woman in labor. The object of this paper is to impress upon our minds the methods that may be of service in the alleviation of this, the greatest of all pains.

The uterus does all the work in the first stage of labor. The principal causes of delay in the first stage are weak pains, infrequent pains, or pains that are too short. If the pains are insufficient in the first stage, our first duty is to ascertain if labor has really begun. Should it be found that the pains are false ones, a sedative should be given and a long rest secured. A hot sitz bath and one-sixth of a grain of morphin hypodermically will usually secure the needed rest. This amount of morphin is not harmful to the child at this stage.

In these slow cases we should not let our zeal get the better of our judgment. The greatest danger is from infection from too frequent examinations. We should make a minimum of vaginal examinations and a maximum of foetal heart sound examinations. As long as the heart sounds are all right there should be great caution before active interference. The management of the case is of great importance. Give rest or exercise

as indicated. Hot coffee and strychnin may be used as stimulants. A dose of castor oil will sometimes work wonders. A hot soap-suds enema may answer the same purpose. A hot sitz bath, a hot water bag to the fundus, and uterine massage may be of service to stimulate the lagging pains. Quinin may be given if it is known that the patient bears it well. I have had no success with it. It nearly always causes annoying nausea, and it sometimes causes postpartal oozing. I consider it a very unsatisfactory oxytocic. If the os is only slightly dilated, the lower uterine segment may be tightly packed with gauze or cotton. Many times after we have done all we can think of, we have to resort to the old formula of "watchful waiting." These long waits are the times that try the souls of nervous doctors, especially if there is present a knowing old woman. We feel like trying most anything that one might suggest. If we had the two poles prepared we might feel disposed to try to pass her between them, as do the women of some African tribes, one pressing on the back and the other on the fundus of the uterus. The Indian squatting position is still used in cases of weak abdominal muscles. Various applications and incantations have been used from time immemorial, showing how the doctor has been up against it for these thousands of years.

We are hardly so helpless in the second stage of labor. Here we have remedies that are more efficient and operative measures that are more feasible.

If the woman is a primipara, she should be taught how to bear down. Weak abdominal muscles may be reinforced with an abdominal binder. Slight narcosis may help wonderfully, the woman being afraid of the pains. External stimulation is more effective in this stage. The exaggerated lithotomy position, external compression, and pressing on the sides of the coccyx may each be of service.

In 1904 Dr. Thompson of Hot Springs read a paper before this section of the Arkansas Medical Society, explaining a method of delivery by manual dilatation of the vagina and cervix. He uses chloroform to surgical anesthesia, and by inserting a finger at a time he dilates the vagina and afterward the cervix. After the fingers are all introduced, he closes the hand so that the fist will stretch the tissues and stimulate the pains. This procedure has been used successfully when the cervix was dilated no larger than a dime, and

*Read by title before the Section on Practice of Medicine of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May, 19-22, 1914.

labor terminated many hours before the expected time. The theory advanced was that the vagina had to be dilated any way, and that manual dilatation stimulates the pains and aids in an early delivery. The only objection raised to this method was the increased danger of infection.

Dr. Roland at the same meeting advocated the hot sitz bath as a means to hasten delivery. He claims it to be much superior to chloral hydrate as a sedative, and at the same time greatly stimulates the pains. The use of chloral seems to be rapidly falling into disuse.

In these delayed cases in the second stage is where pituitrin comes in with so much service. The advertisement that says "THROW AWAY YOUR FORCEPS AND USE PITUITRIN" is a gross injustice to the drug. It will not relieve all cases of dystocia.

In my series of cases I record two failures. The first case was a breech presentation at the seventh month in a primipara of twenty-eight. After complete dilatation three anules were given at appropriate intervals. The pains were promptly increased in frequency and length, but they caused no appreciable progress in the labor. Forceps were applied to the breech and delivery accomplished with very little traction.

The second case was a primipara of twenty-six. The woman, the child and the presentation were all normal. The labor was tedious from the start. The pains appeared strong enough, but the woman would not bear down. Pituitrin was given after the os was completely dilated, and again in two hours. There was absolutely no advancement in the labor during this time. Forceps were applied and very little traction required to effect delivery. The child weighed only six pounds. In these two cases pituitrin did not increase the expulsive force of the uterus to any appreciable extent, but the frequency of the pains were greatly increased.

This paper would not be complete without something to say about this wonderful remedy. It is without doubt the most useful discovery since the advent of aseptic midwifery. Literature is strangely free from statements in regard to contraindications. The same can be said in regard to undesirable after effects. It even reduces the complications of the puerperium. After pains are not so severe, the possibility of postpartal hemorrhage is re-

duced, and retention of urine is almost unknown after its administration.

It is not a reliable remedy to initiate pains, or induce labor; neither is it effective in the first stage after labor has begun. The great field of usefulness is in the second stage, where it increases the length and frequency and the expulsive force of the pains. The pains are much more severe, yet the woman appears to bear them much better. She settles down to business and does not complain so much. A mild narcotic does not seem to affect the expulsive force of these pains. The rational use of pituitrin will surely reduce mortality among mothers and babies, and save the doctor much valuable time.

Summing up, let us carry these expediences in our minds; castor oil, hot soapsuds enema, hot sitz bath, hot water bag to the fundus of the uterus, uterine massage, abdominal binder, exaggerated lithotomy position, tamponage, vaginal and cervical dilatation, lateral coccygeal pressure, pituitrin, and forceps. Before using this last named measure, be sure that you have completely exhausted a bountiful supply of patience.

NOTHING LEFT TO CHANCE.

In the preparation of Parke, Davis & Company's diphtheria antitoxin—or Concentrated Antidiphtherie Serum (Globulin), as the product is officially known—the element of guesswork never enters. Modern scientific methods mark every step in the process of manufacture. The producers maintain a large stock farm, miles from the smoke and dust of Detroit, where are kept the animals used in serum production. Their biological stables are under the constant supervision of a skilled veterinary surgeon; they are provided with an abundance of light and fresh air and a perfect system of drainage. Before admission to the stables each horse is subjected to a rigid physical examination, and no animal is eligible that has not been pronounced sound by expert veterinarians. Immunization and bleeding of horses are conducted in accordance with modern surgical methods. The antitoxin is marketed in hermetically sealed glass containers (piston syringes) and each lot is bacteriologically and physiologically tested. Surely, in the preparation of Concentrated Antidiphtherie Serum (Globulin), P. D. & Co., every feature, appliance or method that could contribute to the production of a pure, potent antitoxin would seem to be utilized.

THE JOURNAL

OF THE

Arkansas Medical Society

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DR. WILLIAM E. BATHURST, Editor.

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Notice of deaths, removals from the state, changes of
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Upon request, a schedule of rates will be furnished.

ANONYMOUS COMMUNICATIONS.

Anonymous communications will not appear in the col-
umns of this Journal, no matter how meritorious they
may be.

STATEMENT MADE UNDER NEW POSTAL LAW IN COMPLIANCE WITH THE ACT OF CONGRESS, AUGUST 24, 1912.

Statement of ownership, management, etc., of The
Journal of the Arkansas Medical Society, published
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Owned and published by the Arkansas Medical So-
ciety.

Known bondholders, mortgagees and other security
holders holding 1 per cent or more of total amount of
bonds, mortgages or other securities—none.

Dr. William R. Bathurst, editor.

Sworn to and subscribed before me this 12th day of
March, 1915.

(Seal.)

CHAS. JACOBSON,

Notary Public of Pulaski County, Arkansas.

(My commission expires May 24, 1916.)

Editorials.

THE MAY MEETING.

There will be only one more issue of The
Journal before the meeting of the Arkansas
Medical Society in thirty-ninth annual ses-
sion at Little Rock. Beginning with the
meeting of the House of Delegates on Mon-
day, May 3, and the annual luncheon of the
County Secretaries' Association that night at
the Hotel Marion, the convention will be in
session daily until Thursday evening, May 6.
The program published elsewhere in this issue,

subject perhaps to some slight changes, af-
fords evidence of a meeting unequalled for
attractiveness and profit in the annals of the
society.

This is to be a meeting which no member
can afford to miss. It is worth a personal
sacrifice of time, money and convenience to
attend. The indications now point to the
greatest attendance on record, but it is not
only a question of numbers. This meeting
will profit all who attend. They will be privi-
leged to hear some of the biggest men in the
profession who will address the meeting or
read papers on topics of vital interest. They
will meet brother physicians from all over the
state, renew old friendships, make new ones,
compare opinions, hear instructive debates,
exchange experiences and return home all
the better for the meeting.

There will be a notable collection of exhib-
its, both scientific and commercial. It is only
at such gatherings that it is possible or prac-
ticable to assemble such a collection and it
will be worth your attention. The social
features will not be neglected. The physi-
cians of Little Rock will leave nothing un-
done to make your stay pleasurable and the
occasion one long to be remembered.

Just drop everything and come!

THE REWARD OF OUR HEROES.

The newspapers of February 27 told of the
illness of Mrs. Harriet Carroll, seventy-two
years old, penniless, under treatment in the
charity ward of a Washington hospital. To
probably 999 out of every 1,000 readers that
conveys nothing but the mere every-day fact
that a poor old woman, friendless and alone,
is ill in a hospital.

But who is Mrs. Harriet Carroll, and why
is she penniless, alone and friendless? It is
because her son gave his life that thousands
of his fellow-men might live, and it is writ-
ten "Greater love hath no man than this,
that a man lay down his life for his friends."
The late Dr. James Carroll did even more
than this, for he laid down his life that thou-
sands unknown to him might live. It was he
who in the experiments to prove definitely
the means of propagating yellow fever, sub-
mitted to the bite of infected mosquitoes and
died a martyr to science. And his reward
is that his aged mother, sick and broken, must
seek asylum in a charity hospital!

The military hero "seeking the bubble reputation, e'en in the cannon's mouth," or the naval hero sinking the enemy's ships amid the roar of great guns, is honored in life and lives in books and majestic monuments. But they live to kill and the martyr to science dies to save. Therein lies the difference. No school boy nor illiterate mountaineer but knows of Grant and Lee and Jackson and Napoleon and our later heroes down to Dewey. Holidays are observed to honor the days of the birth of some of these. Their careers were glorious and the youth of the land is impressed with the heights of their glory.

But why no honor or emoluments to the patriot who lays down his life, deliberately without the excitement, the glamor, the thrill of battle to spur him on, with the plaudits of his countrymen assured? Does it not require more real courage? Is not the sacrifice in a holier cause than wholesale slaughter? Are not our ideals all awry when we confine honor and glory to the achievements of the heroes of war and deny them to the heroes of science?

The name and sacrifice of Carroll are known to medical science. To the world the name means nothing. And while our military heroes are rewarded not only by fame, but themselves and their families after them provided for by a grateful country in their physical needs by handsome pensions, the man who willingly gave his life to save countless lives receives no recognition from an ungrateful and unthinking country, and his mother in her old age, bereft of her support by her son's sacrifice, becomes an object of charity.

We are told that when her condition thus became known certain friends tardily bestirred themselves to raise a fund for her support, but why not Congress give recognition to a service the benefit of which to mankind cannot be measured?

Another new advertisement in this issue is The Hygeia Sanitarium, Chicago. This sanitarium is conducted exclusively for the treatment of drug addiction and alcoholism.

Those members who have not paid their 1915 dues now stand suspended. This will be the last issue of The Journal of the Arkansas Medical Society they will receive unless their dues are paid at once to the secretaries of their respective societies.

Personals and News Items.

PERSONALS.

Dr. C. C. Gray has moved from Cave City to Sharp.

Dr. C. R. Shinault is attending the clinics in Chicago.

Dr. W. P. Neal has moved from Auvergne to Holly Grove.

Dr. and Mrs. C. J. March visited in Little Rock this month.

Dr. and Mrs. S. W. Hooke of Little Rock are visiting in Indiana.

Dr. R. R. Dinwiddie has moved from Fayetteville to Fort Smith.

The First District Medical Society will meet April 27, in Jonesboro.

Dr. J. T. Henry of Bentenville visited in southwest Arkansas last month.

Dr. George W. Crile of Cleveland, O., has returned from Paris, where he established a division in the American Hospital.

Every member of a county medical society should invite those of his brethren who are not already members to join the local society.

Dr. W. S. Stewart of Pine Bluff, secretary of the State Medical Board of the Arkansas Medical Society, visited in Little Rock last month.

Dr. and Mrs. Lowe of Gillett have returned to their home after a short stay in Little Rock, where Mrs. Lowe underwent a surgical operation at St. Luke's Hospital.

Dr. W. F. Smith of Little Rock, Division Surgeon, St. L., I. M. & S. Ry. Co., has moved his office from 210 Louisiana Street to the Urquhart building, on East Capitol Avenue.

Dr. Charles S. Holt of Fort Smith has been in Little Rock during the past month, giving a course of instruction in operative surgery in the Medical Department of the University of Arkansas.

Dr. T. M. Fly, recently with the Rockefeller Hookworm Commission of Arkansas, has located in the Urquhart building, Little Rock, and announces his practice limited to diseases of the digestive organs.

Contributions to the Relief Fund for Belgian Physicians may be sent to Dr. F. F. Simpson, Jenkins building, Pittsburgh, Pa. Only a few names of Arkansas physicians have appeared on their lists, and further contributions are urgently solicited.

Arkansas physicians visiting in Little Rock during the past month include: J. S. Butler and J. E. Jones, Sheridan; Vernon McCammon, Arkansas City; A. R. Simpson, Corn- ing; J. T. Chears, Tillar; M. S. Dibrell, Van Buren; P. E. Johnson, Holly Grove; M. L. Norwood, Lockesburg; F. T. Murphy, Brink- ley; A. D. Shaw, Hot Springs; R. I. McClure, Glenwood; H. H. Parr, Eudora; L. R. Ellis, Hot Springs; Don Smith, Hope; L. E. Love, Dardanelle; J. M. Jelks, Searcy; P. E. Thom- as, Jr.; Clarendon.

CONFERENCE OF CHARITIES TO DIS- CUSS MEDICAL TOPICS.

Announcement has been made from the Chicago headquarters of the National Confer- ence of Charities and Correction of the pre- liminary program for its forty-second annual meeting at Baltimore, Md., May 12 to 19. The conference will meet under the presiden- cy of Mrs. John M. Glenn of New York, the second woman president it has ever had.

The program of "Health" will be under the chairmanship of Dr. Richard C. Cabot of Boston. It will include a series of discussions on the social responsibility of the hospital and practical methods of social work in con- nection with hospitals, the chief speaker be- ing Dr. William H. Welch of Johns Hopkins Hospital, Baltimore. Other subjects will be: "A Pay Clinic for Persons of Moderate Means," "The Distinction Between 'Inten- sive Cases' and 'Short Service Cases' in Hos- pital Social Work," and "Social Education of the Physician," the latter subject being treated by Dr. Charles P. Emerson, dean of the Indiana University Medical School.

The discussion of state care of the insane, feeble-minded and epileptic will occur under the chairmanship of Dr. Walter E. Fernald, superintendent of the Massachusetts School for Feeble-minded at Waverly. It will in- clude answers to the question "What Is Prac- ticable in the Way of Prevention of Mental Defect and Disease?" and a discussion of "Available Fields for Research and Preven- tion in Mental Defect." The speakers in this section include Dr. Adolf Meyer of Balti- more; Dr. C. B. Davenport of Cold Spring Harbor, N. Y.; Dr. H. H. Goddard of Vine- land, N. J.; Dr. Martin W. Barr, superinten- dent of the Pennsylvania School for the Fee- ble-minded at Elwyn, and Dr. Walter S. Cor- nell of Philadelphia.

Abstracts.

PYORRHEA.

C. C. Bass and F. M. Johns, New Orleans (Journal A. M. A., February 13, 1915), con- sider pyorrhea dentalis and alveolaris one of the most prevalent diseases to which man is subject. They found it present to some ex- tent in more than 95 per cent of all adults examined and believe that its importance is not sufficiently appreciated by the medical profession. The specific cause of the disease is the endameba. Their studies, which include more than three hundred cases, have been directed toward determining the relation of the endameba to the disorder, the nature of the disease processes and the influence of emetin and ipecac as a specific remedy against the parasite, and the details of dosage, ad- ministration, duration of treatment and pre- vention of reinfection. The organisms are chiefly, if not altogether, *E. buccalis*, and are demonstrable in all cases by proper technic when the lesions are sufficient to produce the specific separation, though the microscope may be necessary. Material is best obtained by scratching it from the bottom of the pock- et. It should not contain very much blood, and may be diluted with five or ten times as much normal salt solution on a microscope slide and examined directly. The organisms vary considerably in size and shape, but with little experience can be recognized. The largest specimens are about the size of *E. histolytica*, and may resemble it. The stain- ing method recommended as sufficient is giv- en as follows: "(1) Spread pus on slide; (2) fix with heat; (3) pour on carbol-fuchsin; (4) wash off at once; (5) stain with Loeff- ler's methylene blue one-fourth to one-half minute; (6) wash, dry and examine with oil- immersion lens." With this stain the endo- plasm and octoplasm are well differentiated and the parasite can be differentiated from the much more numerous pus, epithelial, and other cells present. The size varies from three times the diameter of pus cells down to smaller than pus cells. The description of the disease is given. It attacks primarily the dental and alveolar periosteum, causing ul- ceration of the adjacent soft tissues and pre- vious damage to the tissue is probably a prece- dent. It usually begins around the back teeth and lasts for months and years before its existence is suspected by the patient. The

patient may have noticed that the teeth bleed easily, but thinks nothing of it. As it progresses, however, it may go to the extent of completely loosening the tooth and cause more or less soreness, pain and discomfort and an enormous loss in the aggregate of blood swallowed with the pus. Ipecac and its alkaloids, emetin and cephalin, are all that can be asked as endamebicides. The authors' experiments have been limited to the hypodermic use of emetin and later to the oral administration. They have not tried Smith and Barrett's method of injecting it into the pockets, and do not think that it is reasonably possible that such could completely destroy the parasite in the system. They found more than one-half grain given hypodermically each day generally sufficient for an adult, though less than this amount is sometimes insufficient. It may be possible in some cases that larger doses are needed, but this is sufficient for all ordinary cases. The endamebas disappear in from one to three days of treatment in 90 per cent of all cases, and the pain, soreness and discomfort rapidly decrease. The lesions, however, may require a much longer time to heal—days, or even months. The possibility of reinfection is great, and such things as eating and drinking after others should be avoided. They summarize their paper in the following: "1. Pyorrhea dentalis and alveolaris is practically a universal disease, which leads to the loss of the teeth by a long suppurating process. All people have it sooner or later. It begins in early adult life or earlier. 2. The specific cause of the disease is *Endameba buccalis* and possibly other species, which infect and destroy the peridental membrane. The pyorrhea results largely from the secondary infection. 3. The demonstrable endamebas can be destroyed by giving one-half grain of emetin hydrochlorid hypodermically for three to six successive days. 4. Apparent equal endamebacidal effect is produced by two or three Aleresta ipecac tablets (Lilly) taken by mouth three times a day for four to six successive days. 5. The lesions require variable lengths of time to heal, but many could not be reasonably expected to heal in less than several weeks or months. 6. The treatment must be repeated from time to time until the lesions all heal, on account of relapse or probably reinfection of the lesions as a result of the great prevalence of the infection. 7. Injecting ipecac or emetin into the worst lesions ought to be of service

and can be carried out by the patient in many instances. 8. Rinsing the mouth thoroughly with a solution of fluid extract of ipecac is believed to protect, to some extent, against reinfection, and actually cures the disease in its earliest stages in some instances." The article is illustrated.

COD LIVER OIL.

The therapeutic value of four of the preparations of cod liver oil which are on the market has been tested by J. P. Street, New Haven, Conn. (Journal A. M. A., February 20, 1915), who gives his findings. The products tested are Hagee's Cordial, Vinol, Wampole's Extract and Waterbury's Compound, these representing an extract with hypophosphites, one with peptonate of iron, one with malt extract and hypophosphites together with alkalies and strychnin, and one with malt extract and hypophosphites without alkalies. The composition of these preparations is given as found by analysis. The alcohol content ranged from 7.50 to 18.69 per cent. Salicylates were present in all but Wampole's and saccharin was used in the Hagee's Cordial. The feeding experiments were made on albino rats, the rations being carefully estimated. Tabulated statements of the results with each preparation are given and the results of the experiments are summarized as follows: Hagee's Cordial failed to sustain rats during periods of seven and fourteen days, the rats showing a loss in weight of 32.6 gm., instead of the normal gain of 24 gm. Vinol in two cases sustained and in two cases failed to sustain growth during periods of from eleven to thirty-five days, their loss in weight being 1.5 gm. Wampole's Preparation in three cases sustained and in one case promoted growth during periods of eighteen and thirty-nine days, showing, however, only 51.4 gm. gain in weight instead of the normal 83 gm. Waterbury's Compound in two cases sustained and in one case failed during the periods of thirteen and thirty days, the net gain in weight, however, being but 0.3 gm. instead of the normal 32 gm. Cod Liver Oil showed a gain of 42.4 gm. over the normal, while with the same rats Hagee's Cordial showed a loss of 60.2 gm. Cod Liver Oil showed a gain of 45.5 over the normal, as against the loss of 43.5 with Vinol; a gain of 19.5 gm. over the normal, against a loss of 31.6 gm. with Wampole's Preparation, and in the same rats, a net loss of 31.7 gm. with Waterbury's

Compound. "Not only did Cod Liver Oil show a marked superiority as a source of nutriment over Hagee's Cordial, Vinol, Wampole's Preparation and Waterbury's Compound, but it also showed a remarkable reconstructive and recuperative power in its ability to enable rats to gain weight rapidly and steadily after having suffered from a deficiency in nutriment when fed with the four preparations named above."

WINE OF CARDUI ACTIVITIES.

"Turning the light into the noisome pit of charlatanry always stirs into squirming activity those who subsist, either as hosts or parasites, on such business. For nostrum exploiters champion that comfortable doctrine, 'Let Us Alone;' they inscribe as their heraldic motto: *Laissezfaire*. To the public unacquainted with The Journal's educational campaign of the past decade," says The Journal of the American Medical Association for February 27, "it might appear that the exposure of the fraud connected with the exploitation of Wine of Cardui was a veritable crusade into a new field. During the past few months it has been necessary, almost daily, to assure interested laymen that the Wine of Cardui articles were but incidents in The Journal's general propaganda of education relative to medical frauds. The amount of 'fuss and feathers' displayed in this specific case is due to several causes—remote and proximate. The most important, probably, is the fact that the chief owner of the Wine of Cardui business is one of the most prominent and powerful laymen in the Methodist Church. Of almost equal importance is the fact that the Wine of Cardui business has been, and still is, enormously profitable. Then there is the incidental fact that the growing spread of prohibition that threatens the millions invested in the distillation of alcohol makes the fate of 'patent medicines' of the alcoholic-tonic type—a business not as yet legally affected by prohibitory laws—one of tender solicitude to the distillers. Add to these reasons the further one that the nostrum evil is, today, before the bar of public opinion, and it is easy to realize that the Wine of Cardui suits against the American Medical Association and the editor of The Journal are causing a stir such as inevitably follows the lavish expenditure of large sums of money.

"An interesting story could be written of some curious coincidences that have occurred

since the Chattanooga Medicine Company and its chief owner brought their suits. Articles appearing in the mouthpiece of the 'patent medicine' interests warning the public against the fell designs of the 'Medical Trust' have been reprinted and widely circulated; nostrum-championing editorials of the 'canned' variety have dropped out in those newspapers that may always be counted on to come to the defense of the 'patent medicine' business; decoy letters have come to The Journal office from hypothetical 'doctors,' mailed from post-office addresses in villages in which the writers apparently rented a postoffice box, and to which they went in motor cars to get the 'answers' that never came; detectives have posed as journalists seeking information about nostrums of the alcoholic-tonic type and have played the part of visitors to Chattanooga, solicitors (?) of the well being of the new church organized after the split in the First Methodist Church of that city following the Wine of Cardui exposures; attempts have been made to 'work' stenographers; efforts have been put forth to learn in advance the dates of public talks to be given on the nostrum evil under the auspices of The Journal—these are but a few of the many things that have occurred. Whether any of these occurrences bear any relation to the Wine of Cardui suits or are wholly or partly inspired by the general 'patent medicine' interests, or whether they are simple coincidences, we leave for our readers to decide.

"But to the medical profession the following synopsis of events will probably be of more interest than the trivial details of the 'ways and means' of the nostrum interests in defending its unwholesome brood:

"1 a: The Journal publishes an article July 18, 1914, showing the fraud connected with the exploitation of Wine of Cardui.

"b: Suit brought by the Chattanooga Medicine Company and J. A. Patten for \$300,000 against the American Medical Association and the editor of The Journal.

"c: The Journal publishes a second article December 5, 1914, on the same subject.

"2 a: Dr. Osear Dowling, one of the trustees of the American Medical Association, in his capacity as president of the State Board of Health of Louisiana, accompanies the state health train from New Orleans to Richmond, Va. The train carries among its health exhibits exposures of various nostrums, including a card dealing with Wine of Cardui. A stop is made at Chattanooga.

"b: Dr. Dowling is sued by the Chattanooga Medicine Company for \$25,000, the papers being served on him before he left Chattanooga.

"c: State Board of Health of Louisiana meets and upholds Dr. Dowling, and declares Wine of Cardui a fraud.

"3 a: The Limestone County (Ala.) Medical Society passes resolutions condemning the methods of the Chattanooga Medicine Company in soliciting physicians to testify for Wine of Cardui.

"b: The Chattanooga Medicine Company sends legal representatives to Limestone County intimating that both the society and the individuals comprising it would be sued if the resolutions are not rescinded.

"c: The Limestone County Medical Society 'stands pat.'

"4 a: The Chicago City Club gives a public health exhibition and among other exhibits has the American Medical Association educational posters on medical frauds, Wine of Cardui cards among them.

"b: Local legal representative of Chattanooga Medicine Company attempts to bluff City Club into removing the Wine of Cardui posters.

"c: Bluff 'called.' Nothing happens.

"5 a: Harper's Weekly, in its series on fraudulent 'patent medicines,' gives some space to Wine of Cardui and its manufacturers.

"b: Harper's Weekly sued for \$200,000 by Chattanooga Medicine Company.

"c: Harper's 'comes back' in its issue of February 27."

PROVISIONAL PROGRAM

Thirty-ninth Annual Meeting

OF THE

ARKANSAS MEDICAL SOCIETY

Old Presbyterian Church,
East Capitol Ave. and Scott St.,
Little Rock, May 3-4-5-6.

MONDAY, MAY 3.

House of Delegates, 2 p. m.

County Secretaries' Association, 8 p. m.

TUESDAY, MAY 4.

General session, 9 a. m.

Scientific session, 11 a. m.

"The Green Fly (*Lucilia Cæsar*) as the Universal Destroyer of Motor Function and of Life"—By E. W. Saunders, St. Louis.

"The Lymphoid Tissue"—By H. H. Kirby, Little Rock.

"Congenital Malaria." (This paper will be a clinical report of cases of congenital malaria in which the diagnosis was made microscopically before the fifth day of post-natal life.) By Henry Thibault, Scott.

"Rational Therapeutics"—By Thos. Douglass, Ozark.

"The Early Symptoms of Mental Disease"—By D. W. Roberts, Little Rock.

"Adiposis Dolorosa"—By Charles H. Cargile, Bentonville.

"Diagnosis and Treatment of Hookworm"—By S. J. McGraw, El Dorado.

"Etiology, Pathology and Treatment of Pneumonia"—By E. G. Epler, Fort Smith.

"Typhoid Fever"—By T. B. Blakely, Coal Hill.

"Posterior Deviations of the Uterus"—By W. B. Center, Garland.

"Vincent's Angina and Its Relation to Tonsillar Gangrene"—By William Breath-wit, Pine Bluff.

Papilloma of the Bladder and Its Management"—By Allen E. Cox, Helena.

"Simple Apparatus for Intratracheal Anesthesia" (Demonstration)—By D. Gann, Jr., Little Rock.

"Carbon Dioxid Snow in Dermatology"—By D. W. Goldstein, Fort Smith.

"The Presentation of a Few Patients of Tuberculosis, Bright's Disease and Diabetes—Some of Them Associated with Arterial Sclerosis"—By D. C. Walt, Little Rock.

"Hydrotherapy"—By C. Travis Drennen, Hot Springs.

"Visceroptosis"—By M. D. Ogden, Little Rock.

"An Etiologic Factor in Psoriasis and Allied Skin Diseases"—By Abner H. Cook, Jr., Hot Springs.

"Mastoiditis"—By J. W. Ramsey, Jonesboro.

"Trachoma"—By C. N. Pate, Little Rock.

"Tonsillectomy with Local Anesthesia"—By H. H. Rightor, Helena.

"A Talk on Obstetrics"—By O. A. Caruth, Little Rock.

Subject to be announced—By Charles Brookover, M. S., Ph. D., Professor of Histology and Embryology, Medical Department, University of Arkansas.

"Helping Humanity"—By T. B. Bradford, Cotton Plant.

"The Study of Infant Mortality, with Special Reference to Conditions in Arkansas"—By H. H. Nichuss, El Dorado.

"Ectopic Pregnancy"—By William A. Snodgrass, Little Rock.

"Then, Now and Between"—By C. J. March, Fordyce.

"Alcoholic Neurosis"—By S. W. Colquitt, McKamie.

"A Plea for a More Thorough Examination of Patients Suffering with Pulmonary Tuberculosis"—By Sam E. Thompson, Carlsbad, Tex.

"The State Hospital for Nervous Diseases"—By F. B. Young, Little Rock.

"Anent the General Practitioner"—By Don Smith, Hope.

"Preliminary Report on Lesions of the Nervous System in Pellagra"—By A. C. Shipp, A. M., M. D., Professor of Pathology and Bacteriology, Medical Department, University of Arkansas, and D. A. Rhinehart, A. M., M. D., Associate Professor of Anatomy, Medical Department, University of Arkansas.

Oration on Surgery—By Jabez N. Jackson, F. A. C. S., Kansas City.

Report of the Eye Clinic of the Medical Department, University of Arkansas, 1914-15—By F. Vinsonhale, Little Rock.

"Cancer of the Uterus"—By J. G. Eberle, Fort Smith.

"Pyloric Stenosis"—By T. Wistar White, St. Louis.

"The Present Status of Renal Surgery"—By Lewis Wine Bremerman, Chicago.

"Acute Intestinal Obstruction"—By W. F. Smith, Little Rock.

"Vital Statistics"—By C. W. Garrison, Little Rock.

"The Old Man and His Prostate"—By J. P. Runyan, Little Rock.

"The Importance of Treating Diseases of the Accessory Sinuses of the Nose"—By L. H. Lanier, Texarkana.

"Goiter"—By Anderson Watkins, Little Rock.

"Syphilis"—By Preston Hunt, Texarkana.

"Syphilis"—By Loyd Thompson, Hot Springs.

"The Endotoxin Reaction"—By E. H. Martin, Hot Springs.

"General Anesthesia"—By M. G. Daly, Little Rock.

"Diagnosis and Treatment of Incipient Tuberculosis"—By S. J. Wolfermann, Fort Smith.

Subject to be announced—By E. E. Barlow, Dermott.

Subject to be announced—By E. C. Meyers, Fort Smith.

Subject to be announced—By William H. Deaderick, Hot Springs.

Subject to be announced—By R. H. Huntington, Eureka Springs.

Subject to be announced—By Earle H. Hunt, Clarksville.

Subject to be announced—By R. A. Hilton, El Dorado.

Subject to be announced—By H. C. Dunavant, Osceola.

Subject to be announced—By J. P. Lunt, Leonard.

Subject to be announced—By M. C. Hughes, Rector.

Subject to be announced—By Morgan Smith, Little Rock.

Subject to be announced—By A. C. Jordan, Pine Bluff.

Subject to be announced—By C. S. Pettus, Little Rock.

PUBLIC HEALTH SESSION
OF THE
ARKANSAS MEDICAL SOCIETY

Old Presbyterian Church,
East Capitol Ave. and Scott St.
May 5, 8 P. M.

"State Board of Health"—By Dr. C. W. Garrison, chief health officer, State Board of Health, Little Rock.

"Quarantine, Isolation, Vaccination, as a Safeguard to the Public"—By E. C. Meyers, Fort Smith.

"Public Health as an Economic Factor"—By Henry Thibault, Scott.

"The Relation of the Physician to the Public Health and His Obligations"—By O. L. Williamson, Marianna.

"What Tuberculosis Cases Are Unsuitable for Sanatorium Treatment"—By John Stewart, superintendent Arkansas Tuberculosis Sanatorium, Booneville.

PROGRAM
OF THE
SECOND ANNUAL MEETING
OF THE
SECRETARIES' ASSOCIATION OF THE
ARKANSAS MEDICAL SOCIETY

Little Rock, May 3, 1915.
Hotel Marion, 8 P. M.

President's Address—By H. H. Niehuss, El Dorado.

"County Societies"—By J. B. Dooley, Little Rock. Discussion by H. R. McCarroll, Walnut Ridge; J. T. Palmer, Pine Bluff, and L. H. Lanier, Texarkana.

"Our State Society President"—By St. Cloud Cooper, Fort Smith.

"Our State Secretary"—By C. P. Meriwether, Little Rock.

"Our Council"—By William A. Snodgrass, Little Rock.

"Our Medical Journal"—By William R. Bathurst, Little Rock.

"Our Association of County Secretaries"—By Thos. Douglass, Ozark.

MINERAL WELLS, TEXAS

An American Spa.

Invites investigation by the profession as a resort, offering a variety of *Eliminative Natural Mineral Waters* and modern facilities for physical recreation and mental relaxation.

Analytic content of the waters from the different wells show from 98 to 365 grains of the combined sulphates of sodium and magnesium, per U. S. gallon, together with the carbonates and bicarbonates of sodium, calcium and magnesium and the chlorides of potassium and sodium in varying amounts.

Physiologic action—ranging from the freely diuretic and mildly laxative to the strongly purgative. Population, 6,000; elevation, 1,200 feet; paved streets, modern sanitation. Good hotels and baths. Six elegant drinking pavilions with an aggregate floor space of 100,000 square feet.

THE COMMERCIAL CLUB
MINERAL WELLS, :: :: :: TEXAS
(Advertisement.)

New and Nonofficial Remedies.

Since publication of *New and Nonofficial Remedies*, 1914, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies:"

ALCRESTA IPECAC TABLETS.—Tablets containing an absorption product of ipecac alkaloids and Fullers' earth, each tablet representing ten grains of ipecac. The ipecac absorption product is said to pass the stomach unchanged, but to be decomposed in the intestine with liberation of the ipecac alkaloids and thus to exert the amebicidal action of ipecac in the body. Eli Lilly & Co., Indianapolis, Ind. (Journal A. M. A., February 13, 1915, p. 591).

TYPHOID COMBINED VACCINE (Prophylactic).—Marketed in vials and syringes, each package containing three doses. Schieffelin & Co., New York (Journal A. M. A., February 20, 1915, p. 665).

CANTHARIDIN, MERCK.—A nonproprietary preparation of cantharidin. Merck & Co., New York (Journal A. M. A., February 20, 1915, p. 665).

A TIMELY QUESTION.

What are you going to do with your drug and alcohol habits? Professional opinion has advanced to the position of regarding these addictions as a disease which is amenable to treatment. Sanitarium care is necessary to the successful handling of such patients, but with the aids afforded by a well-equipped institution, the results of treatment are very satisfactory.

At the Pettey & Wallace Sanitarium, Memphis, Tenn., the most approved methods are employed and the work is carried out under the personal supervision of Dr. Pettey, who originated and published to the profession the now generally accepted method of treatment. When referring patients of this class, don't forget that the man who originated the treatment and who devotes his entire time to it is better equipped to do successful work than one with less experience.

The complete work of Dr. Pettey, a volume of more than 500 pages, can be had of him, or of the publishers, F. A. Davis Co., Philadelphia. (Advertisement.)

Propaganda for Reform.

CELERINA, ALETRIS CORDIAL AND KENNEDY'S PINUS, CANADENSIS, LIGHT AND DARK.—As glaring instances of nostrums exploited to physicians on unscientific claims and false representations, the Council on Pharmacy and Chemistry has prepared reports on the products of the Rio Chemical Co., namely, Celerina, Aletris Cordial, Kennedy's Pinus Canadensis, Light or Abican, and Kennedy's Pinus Canadensis, Dark or Darpin.

In addition to 42 per cent of alcohol, Celerina is stated to contain kola, viburnum, celeris, cypripedium, xanthoxylum and aromatics. There is no ingredient in Celerina, except the alcohol, that has any recognizable activity and the alcohol content is nearly as great as that of whiskey. The sooner it is realized that this preparation is essentially nothing but alcohol and bitters exploited under a fancy name, the better for the science of medicine and the public health.

In addition to 28 per cent of alcohol, Aletris Cordial is stated to contain aletris, helonias and serophularia. These drugs have been discarded as valueless by modern scientific medicine. In Aletris Cordial there is no ingredient capable of producing any other effect than the alcohol stimulation and such psychic effect as may be due to the bitter taste. Yet physicians are asked to believe that "Probably no remedy is so uniformly successful in the prevention of threatened miscarriage as ALETRIS CORDIAL, Rio." Alcohol being the essential constituent of Aletris Cordial, and the amount being high enough to promote the formation of the alcohol habit, the recommendation to administer it during pregnancy and to young girls is dangerous and an outrage.

Kennedy's Pinus Canadensis, Dark, recently renamed "Darpin," and Kennedy's Pinus Canadensis, Light, recently renamed "Abican," are of interest chiefly because of the unwarranted claims which are made for them. The "dark" preparation appears to be some sort of a tannin-bearing extract. The "light" preparation appears to be a sulphate of zinc-alum injection. It is devoid of tannin and is not an extract of pinus canadensis as claimed. A discussion of the claims made for these preparations is superfluous. It is enough to mention that they are recommended in such diseases as albuminuria, fetid perspiration, gonorrhea, uterine hemorrhage and

leucorrhea (Journal A. M. A., February 13, 1915, p. 606).

TRI-IODIDES, THREE CHLORIDES AND MAIZO-LITHIUM.—As an illustration of unreliability of claims and unscientific character of proprietary mixtures, the Council on Pharmacy and Chemistry published reports on Tri-Iodides, Three Chlorides and Maizo-Lithium, products of the Henry Pharmacal Company (J. F. Ballard, proprietor).

The A. M. A. Chemical Laboratory reported to the Council that contradictory and false claims were made in regard to the composition of Tri-Iodides (Henry). The Council held that Tri-Iodides conflicted with its rules in that the composition was incorrectly stated, because it was advertised indirectly to the public, because unwarranted therapeutic claims were made for it, because the name did not indicate the potent ingredients, and because the mixture was unscientific.

Three Chlorides was claimed to contain mercuric chloride, arsenic chloride and ferrous chloride (protochloride of iron). The A. M. A. Chemical Laboratory reported to the Council that, while the advertising matter laid much stress on the superiority of the protochloride of iron which was stated to be present, the iron was not in the ferrous, but in the ferric condition. The Council held Three Chlorides in conflict with its rules in that its composition was not correctly stated, in that it was advertised indirectly to the public for the treatment of diseases with the likelihood of doing harm, in that exaggerated and unwarranted therapeutic claims were made for the preparation, in that the name of this mixture did not indicate the presence of its potent constituents, iron, mercury and arsenic, and in that the routine administration of mercury and arsenic with iron in fixed combination is irrational.

Maizo-Lithium is one of the many proprietary lithium preparations based on the disproved theory that lithium dissolves uric acid deposits in the body. While claimed to contain "maizenate of lithium," the association's chemists reported to the Council that they questioned the existence of such a compound, that the manufacturer had failed to submit evidence of its presence in his preparation, and that chemical analysis indicated the presence of lithium citrate instead. The Council held Maizo-Lithium in conflict with its rules in that its composition was not disclosed, in

that it was advertised indirectly to the public, and in that unwarranted therapeutic claims were made for it (Journal A. M. A., February 5, 1915, p. 528).

PURITY OF ETHER AND POSTANESTHETIC GLYCOSURIA.—Animal experiments by Ross and Hawk show that Postanesthetic Glycosuria is not due to impurities as has been claimed, but is brought about by a carbohydrate-free diet prior to the anesthesia. Those who claim that the U. S. P. tests for the purity of ether are insufficient should present better evidence than they have so far done (Journal A. M. A., February 20, 1915, p. 668).

COD LIVER OIL VS. MILK, BUTTER AND EGGS.—Like other fats, cod liver oil is readily digested and utilized in the body. Its disagreeable taste has largely outweighed its availability as a nutrient. Recent experiments have established that the peculiar growth promoting qualities of cod liver oil are likewise possessed by butter and egg-yolk fat. There seems to be no reason, therefore, to administer the unpalatable cod liver oil (Journal A. M. A., February 20, 1915, p. 667).

COD LIVER OIL CORDIALS.—To determine if the growth promoting principle of cod liver oil is contained in the oilless cod liver oil preparations on the market, feeding experiments have been made with some of these preparations by J. P. Street of the Connecticut Experiment Station. In these experiments it was found that the normal nutrition and growth of rats was not maintained when the fat of a standard ration was replaced by a representative amount of Hagee's Cordial of the Extract of Cod Liver Oil Compound, Vinol, Wampole's Perfected and Tasteless Preparation of an Extract of Cod Liver, and Waterbury's Compound, Plain. When, then, these animals were placed on a ration containing an equivalent amount of cod liver oil, normal nutrition and growth was soon established (Journal A. M. A., February 20, 1915, p. 638).

TOWNS' EPILEPSY TREATMENT.—This is a bromid mixture marketed by the Towns Remedy Company, Milwaukee, Wis. It was found by the A. M. A. Chemical Laboratory to contain the equivalent of 21.3 grs. of potassium bromid and 0.78 gr. of potassium iodid per dose (one and one-half teaspoonful) (Journal A. M. A., February 20, 1915, p. 683).

VIROL.—The Council on Pharmacy and Chemistry voted to refuse recognition to Vi-

rol (sold by the Etna Chemical Company in the United States) because the claims made for it were unsubstantiated and unwarranted. A referee who analyzed Virol concluded that it was an extract of malt, with fat and a small amount of protein. He held that Virol could not be considered a "complete food" as claimed, nor an ideal food for infants (Journal A. M. A., February 20, 1915, p. 683).

SALESTHYL AND SAL-HYL.—Salesthyll, a liquid marketed in capsules, is stated to be the menthyl ester of methyl salicylate. Sal-Hyl is stated to be an ointment of Salesthyll, but the exact composition is not disclosed. Salesthyll was submitted to the Council on Pharmacy and Chemistry with the claim that it had the properties of salicylates, but to be more efficient. The evidence to substantiate the therapeutic claims was found to be inconclusive and untrustworthy. Being similar to "sal-ethyl," described in N. N. R., the name Salesthyll was held objectionable. The Council refused recognition to these preparations (Journal A. M. A., February 20, 1915, p. 684).

ANALUTOS.—Anahutos is a name applied to calcium acetylsalicylate. The Council on Pharmacy and Chemistry refused recognition to Analutos because it was held not to have any advantages over acetylsalicylic acid. In view of this, it was held that medicine should not be burdened with this nondescriptive name (Journal A. M. A., February 20, 1915, p. 684).

BUDWELL'S EMULSION.—Budwell's Emulsion No. 1 is stated to contain cod liver oil, "Iodid of Arsenic," "Iodid of Calcium" and "Iodid of Manganese." Budwell's Emulsion No. 2 is claimed to contain the ingredients of the first and also creosote carbonate and guaiacol. The Council on Pharmacy and Chemistry refused recognition to these preparations because the exploitation made likely their use as "consumption cures" and because they are irrational shotgun mixtures (Journal A. M. A., February 20, 1915, p. 684).

CITARIN.—Citarin was admitted to New and Nonofficial Remedies in 1906. The Council on Pharmacy and Chemistry held that experience had failed to demonstrate the value of Citarin as a uric acid solvent, and hence directed the omission of it from New and Nonofficial Remedies (Journal A. M. A., February 20, 1915, p. 685).

County Societies.

YELL COUNTY.

The Yell County Medical Society met in Dardanelle February 9, 1915, at 1 o'clock p. m., in Drs. Love and Linzy's office.

After the reading of the minutes of the previous meeting the following officers were elected for the ensuing year: W. E. Ballinger, M. D., president, Plain View; A. D. Gilliam, M. D., first vice president, Rover; L. E. Love, M. D., second vice president, Dardanelle; J. R. Linzy, M. D., secretary and treasurer, Dardanelle.

Those present were Drs. L. E. Love, M. L. Kirksey, J. R. Linzy, Dardanelle; N. H. Jackson, Fowler; M. A. Warshan, Centerville; W. E. Ballinger, Plain View; L. Gardner, Fred Hays, L. R. Berryman, J. M. Powell, Russellville; William A. Snodgrass, Little Rock. Dr. Snodgrass read a very comprehensive and interesting paper on a typical case of appendicitis. He gave clinical reports of several unusual cases, showing how obscure a correct diagnosis might be in some cases of appendicitis. A general discussion followed, outlining plans by which the welfare of the medical profession of the county might be better protected.

The society adjourned to meet at Ola the second Tuesday in April.

MONROE COUNTY.

(Reported by P. E. Thomas, Jr., Sec'y.)

Clarendon, March 4.—The Monroe County Medical Society met in Brinkley at 8 p. m., March 2, Dr. A. H. Gilbrech, presiding.

The scientific program was as follows:

"Clinical Cases," by T. J. Stout.

"The Bottle-fed Baby," by E. D. McKnight. Discussion opened by F. T. Murphy.

"Harrison Law," general discussion.

Dr. H. O. Boals of Clarendon died February 14. Cause, Bright's disease. He was the local registrar at the time of his death.

FRANKLIN COUNTY.

(Reported by Thos. Douglass, Sec'y.)

The regular meeting of the Franklin County Medical Society was held Tuesday, March 2, President G. D. Warren in the chair. There were present also Drs. Rambo, Post, T. B. Blakely, J. P. Blakely, Downey, Bowen, Williams, Blackburn and Douglass. Dr. T.

B. Blakely was elected delegate to the State Society and Dr. H. F. Williams was elected alternate.

The secretary read a letter from the secretary of the American Medical Association relative to the recent action of the Wine of Cardui people in soliciting testimonials from physicians. No testimonials of any sort will be obtainable from this society by this fraudulent concern.

Dr. Williams suggested twice-a-month meetings for the society, but the other members thought it would not be practicable on account of the difficulty of getting here.

Dr. Blackburn, county health officer, asked the members to report regularly each month. Very few had been doing so hitherto.

The scientific program was then taken up.

Dr. Post presented an interesting case of psoriasis. Many of the members had not seen a case so well developed.

Dr. T. B. Blakely reported a case of a large ulcer in the lumbar region, patient being an infant and the ulcer being present when born. Dr. Williams had seen a similar case.

Dr. Bowen reported an interesting case of a woman operated on five years ago in which there is now an almost complete occlusion of the os uteri, there being only two pin-hole openings. Menstruation is very painful. Some diagnosed it uterine cancer.

Dr. J. P. Blakely gave an interesting account of a trip to New Orleans for treatment of an obstinate facial neuralgia, which was relieved by alcohol injection; 30 minims of a solution varying from 85 to 95 per cent were used. One into the Gasserian ganglion, one supra-orbital were ineffective. The last one, which gave relief, was at the infraorbital foramen. He had had these attacks every winter and they were increasing in severity. The injections were given by Dr. T. B. Blakely's son, who is practicing in New Orleans.

The time being up, a paper to be read by the secretary was deferred until next meeting. The program for next meeting includes the following papers: "Phylacogens," by Post; "Fractures," by Douglass, and "Menstrual Disorders," by Blackburn.

BRADLEY COUNTY.

(Reported by S. H. Barnett, Sec'y.)

Warren, Feb. 15.—The Bradley County Medical Society met in this city February 9 with good attendance and an interesting program of papers and case reports.

CRAWFORD COUNTY.

(Reported by O. M. Bourland, Sec'y.)

Van Buren, February 28.—The Crawford County Medical Society held a very interesting meeting in this city on February 25. The president, S. D. Kirkland, read a paper on "Fractures," which was discussed by all members present.

Dr. Hunt of Mulberry was a visitor and was voted the privilege of the floor.

We are expecting a large meeting in March.

SEARCY COUNTY.

(Reported by E. W. Wood, Sec'y.)

Marshall, February 20.—The Searcy County Medical Society held its annual meeting in this city January 31. Officers for the ensuing year were elected as follows: President, J. S. Butler, Marshall; vice president, J. O. Cotton, Leslie; secretary and treasurer, E. W. Wood, Marshall; delegate to the State Society, L. D. Robertson.

Book Reviews.

International Clinics.—A quarterly of illustrated clinical lectures and especially prepared original articles by leading members of the medical profession throughout the world. Edited by Henry W. Cattell, A. M., M. D., Philadelphia. Volume IV, twenty-fourth series, 1914. J. B. Lippincott Co., Philadelphia. The price of this book is \$2.00.

This attractive volume contains over fifty illustrations. Four colored plates illustrating "Fibroid of the Uterus Associated with Early Carcinoma," "Early Tuberculosis of the Kidney" and "Submucous Lipoma of the Sigmoid." The book is composed of papers divided into four sections, namely: Diagnosis and Treatment, Medicine, Surgery, Medico-legal and Miscellaneous. Among the interesting articles may be mentioned "Painless Childbirth or Seminareosis in Obstetrics," "The Auscultatory Method of Blood Pressure Determination," "A Clinical Study," "A Visit to the Mayo Clinic," "The London Clinical Congress of Surgeons," and "Expert Testimony."

Progressive Medicine.—A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by H. A. Hare, M. D., assisted by L. F. Appleman, M. D., Philadelphia. Volume IV, December, 1914. Pub-

lished by Lea & Febiger, Philadelphia and New York, 1914. Subscription price, \$6.00 per annum.

Contents: "Diseases of the Digestive Tract and Allied Organs, the Liver, Pancreas and Peritoneum," "Diseases of the Kidneys," "Genito-Urinary Diseases," "Surgery of the Extremities, Shock, Anesthesia, Infections, Fractures and Dislocations and Tumors," "Practical Therapeutic Referendum."

Contributors: Joseph C. Bloodgood, Charles W. Bonner, John R. Bradford, Edward H. Goodman and H. R. M. Landis.

A Quiz Compend of Obstetrics.—By Henry G. Landis, A. M., M. D. Revised and edited by William H. Wells, M. D., Assistant Professor of Obstetrics in the Jefferson Medical College, Philadelphia. Ninth edition, illustrated. Published by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia. Price, \$1.00 net.

The book has been written to give the student a system of questions and answers to bring out the more important facts in obstetrics more clearly than has been done in the method of continuous composition.

A Manual of Diseases of the Nose, Throat and Ear.—By E. B. Gleason, M. D., Professor of Otology in the Medico-Chirurgical College, Philadelphia. Third edition, thoroughly revised. 12 mo. of 590 pages, 223 illustrations. W. B. Saunders Company, Philadelphia, 1914. Cloth, \$2.50 net.

This book gives in concise form the essential facts of rhinology, laryngology and otology. In operations like tonsillectomy and sub-mucous resection of the nasal septum, a technic is given which, in the experience of the author, is simplest, quickest, easiest, most free from traumatism and risk, and yields the largest proportion of good results.

The book closes with a chapter on useful formulas for treatment of diseases of the nose, throat and ear.

Unless it is absolutely impossible to do so, every physician in Arkansas should attend the Little Rock meeting of the Arkansas Medical Society.

Don't forget the date, May 3-4-5-6.

The program affords evidence of a meeting unequalled for attractiveness and profit in the annals of the society.

Our exhibits will be interesting and numerous. The scientific exhibit will be in charge of the laboratories of the Medical Department of the University of Arkansas.

OFFICERS OF THE AMERICAN MEDICAL ASSOCIATION, 1914-1915.

Next Annual Session, San Francisco, June 21-25, 1915.

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Council on Health and Public Instruction—W. C. Woodward, Washington, D. C., 1915; H. B. Favill, Chairman, Chicago, 1916; Walter B. Cannon, Boston, 1917; W. S. Rankin, Raleigh, N. C., 1918; H. M. Bracken, Minneapolis, 1919; Frederick R. Green, Secretary, 535 N. Dearborn Street, Chicago.

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Council on Pharmacy and Chemistry—F. G. Novy, Ann Arbor, Mich., 1915; George H. Simmons, Chairman, Chicago, 1915; New Haven, Conn., 1916; Torald Sollmann, Cleveland, Ohio, 1916; W. I. Wilbert, Washington, D. C., 1916; Reid Hunt, Boston, Mass., 1917; J. H. Long, Chicago, 1917; Julius Stieglitz, Chicago, 1917; J. A. Capps, Chicago, 1918; David L. Edsall, Boston, 1918; R. A. Hatcher, New York City, 1918; H. W. Wiley, Washington, D. C., 1915; O. T. Osborne, John Howland, Baltimore, 1919; Henry Kramer, Philadelphia, 1919; C. L. Alsberg, Washington, D. C., 1919; W. A. Puckner, Secretary, 535 N. Dearborn Street, Chicago.

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Next Annual Session, Little Rock, May, 1915.

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Second Vice President—R. L. Hilton, El Dorado.
Third Vice President—R. S. Rice, Rogers.
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Committee on Sanitation and Public Hygiene—Leonidas Kirby, Chairman, Harrison; Edwin F. Ellis, Fayetteville; Thomas Douglass, Ozark.

Committee on Memorial Tablet in Memory of Dr. John S. Shibley—L. P. Gibson, Chairman, Little Rock; J. B. Eherle, Fort Smith; A. E. Hardin, Fort Smith; Frank Vinsonhaler, Little Rock; M. D. Ogden, Little Rock.

COUNCILOR DISTRICTS AND COUNCILORS, 1914-1915.

First Councilor District—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph counties. Councilor, M. C. Hughey, Rector. Term of office expires 1915.

Second Councilor District—Clebune, Fulton, Independence, Izard, Jackson, Sharp and White counties. Councilor, L. T. Evans, Barren Fork. Term of office expires 1916.

Third Councilor District—Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis and Woodruff counties. Councilor, T. B. Bradford, Cotton Plant. Term of office expires 1915.

Fourth Councilor District—Ashley, Bradley, Chicot, Cleveland, Desha, Drew, Jefferson and Lincoln counties. Councilor, E. C. McMullen, Pine Bluff. Term of office expires 1916.

Fifth Councilor District—Calhoun, Columbia, Dallas, Lafayette, Ouachita and Union counties. Councilor, J. S. Rinehart, Camden. Term of office expires 1915.

Sixth Councilor District—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier counties. Councilor, C. A. Archer, DeQueen. Term of office expires 1916.

Seventh Councilor District—Clark, Garland, Hot Spring, Montgomery, Saline, Scott and Grant counties. Councilor, J. F. Rowland, Hot Springs. Term of office expires 1915.

Eighth Councilor District—Conway, Johnson, Faulkner, Perry, Pulaski, Yell and Pope counties. Councilor, W. A. Snodgrass, Chairman, Little Rock. Term of office expires 1916.

Ninth Councilor District—Baxter, Boone, Carroll, Marion, Newton, Searcy, Stone and Van Buren counties. Councilor, A. M. Hathcock, Harrison. Term of office expires 1915.

Tenth Councilor District—Benton, Crawford, Franklin, Logan, Sebastian, Madison and Washington counties. Councilor, J. T. Clegg, Siloam Springs. Term of office expires 1916.

Delegates to American Medical Association—Robert Caldwell, Little Rock; W. V. Laws, Hot Springs. Alternate—J. T. Clegg, Siloam Springs.

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Lynnhurst Sanitarium

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THE JOURNAL

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VOL. XI.

LITTLE ROCK, ARK., APRIL, 1915

No. 11

Original Articles.

REPORT OF CASE OF TYPHOID INTESTINAL PERFORATION OPERATION WITH RECOVERY.*

By E. F. Ellis, M. D.,
Fayetteville.

One of the earliest papers on typhoid perforation of the bowel was prepared by Van Hook in the Medical News, 1891. In a series of three cases he was able to report one recovery. This seems to have been the first case to recover after an operation for the repair of a perforation. Moynihan and some others give the credit to another as early as 1884.

Scott, in 1907, in an article in the New York Medical Journal, after careful review of mortality tables of typhoid fever, estimates that one-third of the deaths from this disease are due to perforation of some portion of the intestinal tract. The prognosis of typhoid perforation is particularly unfavorable because the patient is already suffering from a severe systemic infection. In fact, so keen an observer as Osler says he could not recall a single case in his experience that had recovered after perforation had occurred. It is certainly clear that internal treatment can avail nothing, unless Nature has possibly thrown out some protective adhesions around the site of the ulcer, and this is rarely ever the case, as the vital forces are more concerned and employed in combatting the resulting toxemia, than in preventing any disastrous effects from localized ulceration of the intestine. Therefore, we may expect a fatal issue in almost every case of typhoid perforation unless the diagnosis is made very early and prompt surgical treatment insti-

tuted. I wish to report the following case of typhoid perforation of ascending colon, in which there was prompt laparotomy with complete recovery of patient.

On September 16, 1913, at 7 a. m., I received a telephone message from Dr. Martin in a neighboring town, stating that he had a case of typhoid fever in the twentieth day, which, one hour before, had developed unmistakable signs of perforation of the bowel. He requested that I come at once, prepared to operate. At 9 o'clock, accompanied by Dr. A. S. Gregg of Fayetteville, we arrived at the bedside of the patient, Mr. Millard Ferguson, whom we found to be a large, muscular man, age twenty-five, in the twentieth day of the typical enteric fever. We obtained the following history from Dr. Martin:

The Patient's wife was in the fourth week with typhoid fever. The husband had been in constant attendance upon her since the inception of her illness. About sixteen days before, when Dr. Martin was called first to see this patient, he found he had been sick four or five days, and at the time he saw him, had an afternoon temperature of 104. He told Dr. Martin that the night before his first visit he had taken a heavy dose of some cathartic pills, and that he had had twenty bowel movements during the night as a result. After receiving medical care, the fever ran the regular course for the first twelve days, when the patient had a severe hemorrhage from bowel. The diarrhea had persisted from the time he had taken the pills. The loss of blood had left him in a very debilitated condition. Forty-eight hours after first signs of hemorrhage, the temperature was again 104 in the evening, and patient very delirious all the time. On the morning of the twentieth day he was seized at 6 a. m. while sleeping, with most excruciating and overwhelming pain in abdomen,

*Read before the Session on Surgery of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

circumscribed and located near navel and somewhat to the right of the median line. At the time Dr. Martin first saw him, about 6:30, the initial pain symptoms, with board-like rigidity of entire abdomen, were most marked; tympany extreme, pulse 130, temperature subnormal, skin leaky. Within one hour there was a violent chill, which was followed at the time I saw him with a temperature of 106, extreme distention of abdomen, pulse 150, pain symptom more marked. Dr. Martin and a nurse had preceded us, and had made the necessary preliminary preparations for an operation. The seriousness of his condition having been explained to the family, they readily consented to the operation—the laparotomy offering only a faint ray of hope, there being none whatever without it. The patient's consent was not sought, as his mental faculties were so obtunded that he was incapable of any reasoning, only answering questions in an incoherent sort of way, when appealed to in a boisterous manner.

The patient was placed upon the operating table at 10 a. m. Dr. Christian gave ether anesthesia, which was preceded by hypodermic injection of one-quarter grain of morphin and 150th grain of atropin. Dr. Gregg and Dr. Martin assisted in operating. A median incision was made from the umbilicus to pubes. Upon opening the peritoneum there was seen welling out of abdomen an abundance of bowel contents. I began my search for the perforation at cecum, running the entire ileum and most of jejunum. We found many places in the walls of the ileum in which only the peritoneal coat of bowel remained. Two of these were repaired with linen sutures, as they were so near perforating. After this was done the search was further extended by beginning at cecum and following the ascending colon. We had gone only six inches on ascending colon when perforation was discovered. The opening in the bowel was on outer aspect of the wall of the ascending colon, and in size the diameter of a lead pencil. The edges were ragged and the hemorrhage was quite profuse from margin of perforation. A button-hole stitch was placed around entire border of perforation; this effectually controlled all bleeding points, after which the purse-string suture of linen—such as is used in an ordinary appendectomy—was made to close the perforation. This being done, a continuous suture was then used to insure further closure and pre-

vent any possible leakage. Further investigation showed this to be the only place in the intestine where there had been complete solution of continuity.

The entire abdomen and pelvis were flushed out with several gallons of normal salt solution, which brought away much bowel contents which had escaped, and much floeculent lymph which had been thrown out by the spreading peritonitis. After this a large spiral rubber drain with gauze wick was passed into right iliac region and brought out at lower angle of wound near the pubes. The peritoneum was closed with continuous catgut suture, number two, twenty-day. The recti muscles were brought together with plain catgut; the rectus sheath was closed with twenty-day, number three, catgut. The skin wound was closed with silkworm gut interrupted sutures, which were also used at four points parallel with line of incision, some distance from the margin and down through fascia, as reinforcing sutures, for it was evident from the extreme tympany that more than usual care in the closure of the wound was required. The patient came off of the table with lower temperature and pulse than when he went on. Dr. Sparkman had given several hypodermies of camphor during the operation. Fifty minutes from the time he was taken to the operating table he was returned to bed, placed in Fowler's position, with temperature of 101, pulse 130, skin moist, but no evidence of extreme shock.

The day before operation the morning temperature was 101, evening 102, pulse 90 to 96. The evening temperature the day of operation was 103, pulse 130. There was very little nausea or vomiting following; bowels moved one or more times each day. The drainage tube was removed forty hours after operation, and gauze wick placed in its stead. The after-care of the case was left entirely with Dr. Martin, who reported at times stormy conditions, but on the whole the case made fair progress toward recovery, developing about twelve days after a mural abscess which resulted in considerable loss of structure from sloughing on either side of the line of incision. Aside from these complications the after-course of the case did not manifest much unusual to the ordinary severe case of typhoid, at the same periods of the disease, except he was slow in recovering. Twelve weeks from the time of operating, he was able to be out of bed, and was taking full

feeding with no discomfort, the abdominal wound entirely closed, and no hernia. He is today making a full hand on a farm.

Gentlemen of the Arkansas Medical Society, I should not have ventured to report this case had I not felt it a duty to do so, hoping that other valuable lives can be saved by timely operative interference in just such cases. Most of us have had cases of unmistakable typhoid perforation to die, and made no attempt at surgical relief for them. We have men sufficiently skilled in abdominal surgery in almost every town and hamlet in the state, who can do this class of work with some success and some failures.

I trust the report of this successful case may impel others to do as Dr. Martin did—make a prompt, positive diagnosis, and have the courage of his convictions to urge the only means for its relief—timely surgical intervention.

DISCUSSION.

Dr. R. C. Dorr (Batesville): I never operated on a case of perforation from typhoid fever, but I have for gunshot wounds. But I don't tear up anything. I just find the openings with the least manipulation possible, close them up, and the patient has a 75 per cent chance to get well. There is no reason in the world that I know of why any perforation of the bowel should not be operated on at any time in proper environment. I don't mean you cure them all, but it is the only chance they have. If you do go in there, it is your duty to find that opening and close it. Otherwise you operate for nothing.

Dr. St. Cloud Cooper (Fort Smith): It is not always easy to make a diagnosis of intestinal perforation in typhoid fever. I have operated upon two cases. The first case was a perforation, probably of eighteen hours duration. The perforation was found, closed, abdomen drained, and the Murphy-Fowler treatment used. This woman was too far gone to withstand the shock of the operation. There is quite a difference in the result in operating upon a gunshot wound in a well person and a case of typhoid perforation. The gunshot wound is usually in a previously healthy person able to stand operative interference, while the typhoid perforation occurring in a person already debilitated by severe infection has but little recuperative power. The second operation was done on a man who had been sick for four weeks with a severe typhoid infection. He had had a severe intestinal hemorrhage, to be followed later by a perforation of the intestine. His condition was so critical that all that was done was a right rectus incision with drainage. The abdominal cavity was enormously distended with gas. Same after treatment was used as in the previous case. He died within twelve hours. The bad luck following these two operations would not prevent me from operating again under the same circumstances, for the life of the patient might be saved.

Dr. W. A. Snodgrass (Little Rock): I think Dr. Ellis should be commended for his paper, especially that he operated on a case of typhoid perforation. I do not see why an operation for typhoid perfora-

tion should be any more dangerous to a patient than for gunshot wound or other perforations of the bowels. If the patient has been treated properly, his bowels are empty; typhoid infection does not lower the vitality much more than profound shock would from a sudden injury. I never operated on a case of typhoid perforation, but have always thought if I could get hold of a case I would try it; at least, I would not give up the patient to die without making an effort to close the perforation. Operations have been done successfully, and I believe that if the doctors who have charge of these typhoid cases were a little more careful and urged operations immediately after perforation takes place, it would save a great many lives.

Dr. G. A. Warren (Black Rock): There was a statement made by Dr. Ellis that might have been true of his authority, but I challenge its truthfulness in general; that is, that one-third of the deaths from typhoid fever are due to perforation. In twenty years of my close observation in treating typhoid fever, I have seen but one case of death from perforation. That was the case of a small boy who had the fever for five or six weeks, and ate two articles of diet, either of which might have caused the perforation. One was this commercial jelly; another was some vegetable, as I remember now, that his mother gave him. This was a decided perforation, no question about it. When I saw the boy, which was midnight and after, his belly was bulging tympanitic and he was suffering intensely. The boy died before daylight. There was a storm raging at the time, and I questioned the advisability of an operation, had I had all of the facilities and the assistance that I needed, both of which were impossible at the time. I saw, with Dr. J. A. Dibrell, a case of perforation at St. Vincent's Hospital at Little Rock, a peculiar case. In a day or two the abdomen would become distended and gradually go down; maybe in three or four days the same thing would happen again. It was very interesting to Dr. Dibrell; he had several of us with him; Dr. Runyan and Dr. Shinault were there. He told us, "This is a case of perforation, but I don't think it is of sufficiently grave importance for operative interference. I am watching it." The case got well without an operation. Two years ago, as I remember now, I was treating with other physicians a case of typhoid fever, in which we diagnosed a tumor over the appendiceal region and thought we had a case of appendicitis. It went on and got no better apparently. We opened up the abdomen, found the tumor or mass, and it was a mass of adhered intestines. There had been a typhoid perforation, and the guts had come together and sealed it up. In trying to find the appendix in this mass, we broke up the adhesions and went into the gut. That case would have gotten well without an operation. In fact, Nature had done the work. So, in the three perforations that I have seen, two of them Nature took care of. The other one was too far gone when I saw it for an operation. Now, don't understand me to say that I condemn an operation in typhoid perforation; I do not. In the case that Dr. Ellis reported, it was clear-cut and one of the typical, classical cases of typhoid perforation. He operated early, and he did the only thing there was to do. The perforation wasn't of small magnitude, but a large one, and the result would have been death otherwise. But, again, I want to say that probably Nature takes care of a great many more of those cases than we give her credit for.

and I doubt that we have even one-tenth, or I should say one-twentieth, of the deaths due to typhoid perforation that die from typhoid fever and complications. I say that because I have studied pretty closely the reports of close observers on this line generally. I am not prepared to say that a greater number is not true in certain localities or under certain observers; but, if you make out your diagnosis and it is clear-cut, the only thing to do is to operate. I saw a case of two perforations operated on in Memphis. One of them had evidently existed for some days; one of them was recent and large, and it was for that reason that the operation was made. And in operating, they found the smaller perforation. It had done comparatively no harm, was closed by plastic material, and the adhesion walled it up. The other one would have produced death, undoubtedly, had it not been looked after.

Dr. Ellis (Essayist): I don't believe I have anything to add further than to say to Dr. Warren that my authority for the statement is found in the work on surgery written by Van Hook of Chicago. In that he quoted the statement I made about the number of deaths that occur in typhoid perforation, which is one to three.

ARTERIOSCLEROSIS AND ITS RESULTS.*

By H. T. Smith, M. D.,
McGehee.

Arteriosclerosis may exist for many years without giving rise to a single subjective symptom.

In exceptional cases, symptoms which are ominous and profoundly affect the patient during their presence may occur during the course of arteriosclerosis without recurring for months or even years. An artery which is the seat of nonspecific arteriosclerotic changes, atheroma, endarteritis or periarteritis never again returns to its normal condition. The changes in the artery may be of a degenerative, productive or inflammatory nature of syphilitic origin, which may be favorably influenced by syphilitic treatment. The fact remains, nevertheless, that arteries which are once the seat of nonspecific degenerative changes, whether in the young or in the aged in those entitled to signal changes because of improper living or from other unknown causes, are never again likely to return to their normal condition. If there is any change at all, it is one of retrogression. It is a clinical fact that arterial change is better borne by the aged than by the young, and that the lesions in the former are often present during many years without

giving rise to a single painful or a serious subjective symptom.

Not infrequently in presence of acute infection in the aged, with associated arterial changes, we fail to find a single subjective symptom referable to such pathologic lesion.

It is not uncommon to find the radial artery uneven (pipe stem), the aortic first sound muffled or an arterial aortic obstruction, temporals standing out in bold relief, the diagnosis positive; and yet the individual has never suffered a pang or the slightest inconvenience.

On the other hand, serious and threatening symptoms are present, often painful, in cases with palpable arteries which give no clue to the underlying pathological condition.

A patient with a soft radial pulse, a urine of normal specific gravity, no albuminuria, is suddenly, while he is supposed to be enjoying the best of health, seized with alarming angina pectoria, positive evidence of ossification of the coronary vessels.

Arteriosclerosis in the majority of cases is accidentally discovered, this particularly true of patients who have passed the sixtieth year.

In patients between forty and fifty, arteriosclerosis is likely to make itself known by positive painful or objective symptoms, readily interpreted, pointing at once to the organ most influenced by the degenerative process.

No patient is too young or too old to be thoroughly searched for arterial changes.

Clinicians and pathologists have tried to explain the cause of these painful paroxysmal or evanescent symptoms in the presence of profoundly changed blood vessels.

The lumen of the arteries are narrowed by deposits. The thickened wall of the artery remains unchanged and in many cases the organ nurtured by these changed twigs are more or less degenerated or disorganized; and yet, in spite of these facts, symptoms referable to these special arteries and to the parts supplied by them are often evanescent, rarely continuous, or may be entirely absent. Some change in the artery arousing revolt and consecutive sensory symptoms must account for this history.

A number of years ago the term (vascular crisis) a very good term to use in connection with recurring symptoms usually painful which are associated with changed arteries.

Vascular crises, it may be said, are associated with diseased arteries in which a defi-

*Read in the Section on Practice of Medicine of the Thirty-eighth Annual Session of the Arkansas Medical Society, held in El Dorado, May 19-22, 1914.

nite symptom is due, as a rule, to vascular contraction, narrowing of the artery or arterial system, though occasionally it may be assumed that dilatation, or vasa-dilator paralysis, may predominate. We may thus explain the unique behavior of angina pectoris and their paroxysmal conditions always painful and often threatening.

It is well to emphasize the fact that vascular crises are usually provoked by some factor which throws extra tax on the organ invaded. Thus it is not uncommon to find that a patient develops angina pectoris after a hearty meal when the stomach is full and the digestion is in progress. If at such time he walks or exerts himself physically, an added amount of work is placed upon the organ and an extra amount of blood needed; the nutrient arteries are insufficient, revolt follows, arterial paralysis or spasmodic contraction results.

The closure of one coronary artery does not lead to death; the closure of both coronaries leads to immediate death, and this may follow without pectoral angina. Arteriosclerosis far advanced may be present for years, associated with coronary involvement, without a suggestion of angina pectoris. The Adams-Stokes phenomenon is one of the most interesting combination of symptoms that we meet. Included in this complex are bradycardia, peculiar epileptiform seizures, disassociation of ventricular and auricular contractions, causing a venous pulse out of proportion to the slow arterial contraction, the latter at times being slower than the respiration, in which the symptoms are due to (block) in the fibers of his lesions involving the arteries supplying the interventricular septum, or other masses breaking the continuity are responsible for these symptoms.

Arteriosclerosis of the vessels in the interventricular septum are not unusual. Angina pectoris need not give rise to symptoms of the pectoral region alone.

There is another class of cases, although rare, which may be considered under this head, which were described by Weir Mitchell in 1872. An erythromelalgia associated with distressed suffering, limited, as a rule, to the lower extremities, in which the pain is paroxysmal, is associated with great redness of the extremities, particularly when suspended. This characteristic redness has given the disease the name of red neuralgia. In these cases the blood vessels are invariably found to be diseased and the disease is not limited

to the nerves, but is due to an obliterating endarteritis, or a degenerative change of the blood vessel of the extremity involved.

The kidney is also found to suffer from arteriosclerotic changes with associated atrophy of its glomeruli, fibrosis and contraction, a vascular nephritis.

Associated with arteriosclerosis we have increased blood pressure, as a rule; and at this time I want to say that we should make a careful study of the blood pressure of our patients.

It is often exceedingly difficult to distinguish between chronic arterial hypertension and an incipient arteriosclerosis. Blood pressure study proves conclusively that arteriosclerosis is not necessarily a hypertensive disease.

The prognosis and treatment of these conditions are not particularly encouraging. Unless these are dependent upon a removable cause, the greatest and only improvement follows proper diet, rest, guarded exercise, local treatment, and the free use of vasa-dilators. Improvement and temporary relief may follow, but not cure.

If of syphilitic origin it may yield to energetic treatment, provided, always, that the patient be treated energetically and early.

The great danger lies in the fact that Nature brooks so many insults, is so tolerant and long suffering, that the revolt which certainly follows and which makes clear the presence of arterial change, is too long postponed to admit of preparation.

DISCUSSION.

Dr. St. Cloud Cooper (Fort Smith): I am sorry we did not have more of our members present to hear this paper. If we examine our patient carefully we will run across arteriosclerosis quite often. We will also find many cases among young people. I have a patient, a young man twenty-eight years old, who never had any syphilis, but has a blood pressure ranging from 190 to 260. This man's most prominent symptoms are violent headaches and pains in the back of the head. His radial pulse feels like a whip-cord. Another patient of mine, a female thirty-eight years old, eighteen months ago had a blood pressure of 130 mm. Hg. She had been for years given to much worry over trifles. After a great disappointment her blood pressure ran up to 240 and has continued high ever since. Of late she had developed well-marked interstitial nephritis. We know that we have a considerable number of causes of high blood pressure. Syphilis, nephritis, intestinal toxemia, worry, alcohol, overeating, and a strenuous life being the most frequent causes of this disease. The treatment is unsatisfactory. I believe elimination and a quiet and uneventful life are our best means of treatment.

Dr. H. Thibault (Scott): I think that in dealing with young people we sometimes reverse our medical dates and take for granted that a patient with a high blood pressure has arteriosclerosis. We sometimes make the diagnosis of arteriosclerosis solely from a hypertention when the hypertention simply means an increased peripheral resistance due to spasm in the arteriols, or to some organic obstruction to the peripheral circulation. Any long continued increase of peripheral resistance causes the arteries to become sclerosed and thickened merely as a protective measure against the greater internal pressure. We can produce an experimental arteriosclerosis by repeated injections of suprarenal products which cause arteriole contraction, increased peripheral resistance and arteriosclerosis as a result of the greater blood pressure. Of course, later in life when the arteries have become sclerosed as a natural consequence of advancing years, we have a vicious cycle established of high blood pressure on the one hand and the sclerosis producing its increased peripheral resistance on the other hand, each one augmenting the other. It is probable that very often previous acute infectious diseases and acute nephritis following these diseases is overlooked by the practitioner as a cause of high blood pressure in people under twenty-five or thirty years of age. Unless acute nephritis produces dropsy, bloody urine or severe dyspnea, it is apt to be overlooked. The parents may remember that the child was "a little pale" or "badly run down" after some apparently trivial illness which was probably a mild case of scarlet fever or a soreness of the throat, for which they thought it unnecessary to call in a physician. Later on in life when you are trying to get a previous medical history of this case, you will find that accurate previous histories are hard to get, even from intelligent people. They are prone to tell you what they think is important rather than to give you all the facts and allow you to use your own discretion as to their relative importance. The steps that have gone before in producing arteriosclerosis or chronic nephritis are so far away from the final result that it is often very hard to bring them to light in the taking of an ordinary case history. A more or less disconnected series of minor ills, considered of no importance at the time of their occurrence and from which the patient recovered without medical attention, often proves to be the foundation upon which chronic nephritis and arteriosclerosis are built up.

Dr. Smith (Essayist): I would like to say that in the paper I made the statement that arteriosclerosis was not necessarily a high tension disease. I understand from Dr. Thibault that he understood that I said it was a high tension disease, but in the majority of cases I think of arteriosclerosis you have increased blood pressure

cleansing the hair and scalp. Their singeing the hairs, their various methods of massage, "hair tonics" and "hair restorers" and "scalp treatments," applied indiscriminately, without intelligent appreciation of the indications to be met, may be harmful; they are at best useless forms of diversion. There is no objection, however, to a good shampoo by a careful and clean barber or hair-dresser. Having it done for one is a form of luxury.

Massage of the scalp as a measure to check the falling of hair is of some service when the scalp is free from dandruff. With dandruff present, it is of doubtful value, or harmful. In massage of the scalp, all that is necessary is to give it a good rubbing, carried only to the point of producing a feeling of "life" and glow. This requires no special skill, but can be done for one more easily than one can do it oneself. Mechanical massage offers no advantages over simple rubbing, and is liable to be too vigorous.—*Journal A. M. A.*

ANALGESIA AND CHILDBIRTH.

J. C. Webster, Chicago (*Journal A. M. A.*, March 6, 1915), reports his experience during the last ten years with nitrous oxid gas in obstetric complications, and during the past year it has been employed regularly by the staff of the Presbyterian Hospital to abolish pain in the second stage of labor. The technic is very simple. The administration is begun, as a rule, when the second stage pains are felt by the patient, though sometimes in the latter part of the first stage. A small nasal inhaler is used, the mouth of the patient being uncovered, and the gas bag is kept under low pressure. The patient is instructed to breathe quietly with closed mouth. This usually suffices to produce analgesia, and does not interfere with the expulsive efforts in the progress of labor. As soon as the uterine contraction begins to subside, the inhaler is removed, and the patient becomes again conscious. The nurse or assistant may be instructed to administer the gas satisfactorily, and it may be continued for hours if necessary. The amount of gas used varies, and the cost accordingly. The method is recommended as the safest and simplest method for painless labor, and its advantages over the much-advertised "twilight sleep" are detailed. It can be used at homes as well as in a hospital, and requires no special arrangements such as are called for in the scopolamin-morphin method.

THE CARE OF THE HAIR.

The promiseous application of "hair tonics" and other nostrums is regarded by some authorities as an important cause of baldness. These haphazard applications, without any regard to the indications of the individual case, are at best valueless. The same is true of the numerous activities of barbers and hair-dressers, when their efforts go beyond the use of measures directed merely to

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Editorials.

THE ANNUAL MEETING.

This will be the last issue of The Journal before the annual meeting in May, and this is the excuse, if any be needed, for making a last appeal to the members to come, even at some personal sacrifice. We wish to make this the banner meeting in the history of the society—a record-breaker. It is going to be worth while from every point of view, socially, materially and educationally. We say “materially” because everything that tends to broaden one’s view, add to his efficiency, teach him something, give him new ideas, advances his chances to rise in his profession. In addition to those distinguished visitors named in previous issues of The Journal, others who have promised to come include: E. W. Saunders and T. Wister White of St. Louis, Jabez N. Jackson of Kansas City, William Carpenter MacCarty (Mayo Clinic) of Rochester, Lewis Wine Bremner of Chicago, Charles Brookover of the University of Arkansas, and others.

The program will be found on another page in this issue of The Journal. Read it carefully and ask yourself if you can afford to miss this great meeting.

The scientific program calls for sixty-one papers and every one of them is of value

One evening will be devoted to the County Secretaries’ Association, another to a public health session, and there will be a reception and many other social functions and diversions provided by the hospitable people of Little Rock, whose guests the members will be. Make up your mind, if not already made up, to put everything else aside and attend the meeting. You will be amply repaid for the outlay of expenses and time. It will prove a most profitable investment.

UNDERGRADUATES TO MEMBERSHIP

For several years the question of admitting undergraduates to membership in the County and State Medical Societies has been discussed, pro and con, at the annual meeting of the State Society. Opinion is divided or the matter would have been settled long ago. At the last meeting a resolution was introduced providing for the elimination of the words “Who is a graduate of a reputable medical college” from Section 5, Chapter IX, of the by-laws of the society. With this proviso no undergraduate physician can become a member of the county societies, and such membership being essential to membership in the State Society, he is therefore automatically debarred from that body. In addition, he is pledged not to practice nor attempt to practice, nor lend his support to any exclusive system of medicine.

At the El Dorado meeting the Reference Committee reported as follows:

“We further recommend the admission of undergraduates to membership on some basis that will be satisfactory to the society.”

This recommendation has not yet been acted upon, and in view of the fact that undergraduates can no longer obtain state medical license, it is desirable that the basis in question should be established at the coming meeting, in order that the few desirable practicing physicians in the state not affiliated with any society may no longer be orphans. The House of Delegates, in view of the recommendation of the Reference Committee, should devise some means of carrying out the recommendation by making undergraduates eligible to membership. The society has nothing to gain by keeping them out, but, on the contrary, it will be to our advantage to have them with us.

THE STATE HEALTH BOARD.

It is unfortunate that the governor, in his wisdom, safeguarding the state's credit and financial interests, should have been compelled to cut out that part of the appropriation looking to the traveling expenses of the health officer. There is no disposition to criticise the action of the governor. The money was neither on hand nor in sight to meet the expenses of the state, and the application of the pruning knife was necessary. What we regret is that the action was necessary. The Arkansas Travelers have been a great help to the health officer. They have called attention to unsanitary conditions in sundry hotels and restaurants throughout the state and their Committee on Hotels have co-operated with the Health Department to the extent not only of reporting such violations of the health laws, but of accompanying the health officer or one of his assistants to such places where unsanitary conditions prevailed, and it is gratifying to state that in some cases conditions have been remedied. The Travelers will continue to report unsanitary conditions as heretofore and the health officer will do what he can to remedy them. But it is impossible for him to accomplish as much at long range as he could by personal visits. All we can do is to hope that when the state recovers its healthy financial condition the lawmakers will be impressed with the necessity of equipping the State Health Department so that it can the more successfully cope with disease-breeding conditions and be in line with boards of health in other states.

WHY PHYSICIANS ERR IN DIAGNOSIS.

"Since the announcement by Cabot that post-mortem findings reveal a high percentage of incorrect clinical diagnoses, the question as to the reason is important. In many institutions special attention has been devoted to the problem, and in the city of New York it was made the subject of a municipal report. Recently, in London, a well-known graduate school invited thirty-four specialists to speak on common mistakes encountered in their particular fields. In a review of these lectures," says The Journal of the American Medical Association, "Abrahams has presented an outline and analysis of the causes of error. It was, of course, surprising to find that the field of medicine could be divided into thirty-four specialties. A few

decades ago such a series of lectures could include but five or six topics. Today the chest is divided into the lungs and the heart, and, says Abrahams, 'even the cardiac specialists exhibited a marked tendency to dichotomy, for a struggle between displaying his experiences as a clinical diagnostician and his skill as a mechanical cardiologist was manifest.'

"Errors in diagnosis are due to certain definite causes. The large percentage of such errors are avoidable, but only by ascertaining wherein the defect lies can improvement be possible.

"Abrahams classifies errors on the part of physicians into two groups, social and clinical.

"Social errors, under which are listed (1) bad deportment and (2) lack of tact, affect chiefly patients suffering from such functional disorders as hysteria, psychasthenia and neurasthenia. Social errors prevent the physician from gaining the necessary confidence of such patients and inhibit the establishment of the thorough sympathetic understanding which should exist between the functional neurotic and his physician.

"Clinical errors are due to (1) ignorance, (2) faulty judgment, (3) obsession, (4) failure to think anatomically, (5) failure to think at all, (6) reluctance to accept responsibility, (7) inherent difficulties in the case, and (8) incomplete examination. Naturally, these divisions may overlap in their application to any special case.

"As examples of gross ignorance, the author mentions overlooking a large amount of cerumen as a cause of deafness, or diagnosing a swelling in the abdomen, four days after labor, as 'acute metritis' when in reality it is a bladder full of urine. Ignorance itself may, indeed, be classified as the ignorance of fundamental facts, ignorance of the existence of rare conditions and the almost inexcusable ignorance of the recent progress in medical science.

"An error of judgment is the diagnosis of mental defect in a child who is merely deaf. The physician who diagnoses pregnancy when it does not exist, or vice versa, commits an error of judgment, which he always regrets far beyond what at first thought seems to be the gravity of his error.

"Much more rare is the error due to obsession; it is well known that the syphilologist is inclined to see in every lesion the results of the widely spread treponema pal-

lidum. To think anatomically means to consider in the analysis of any local condition all the possible anatomic and physiologic relationships of that part.

"Mistakes from inherent difficulties in the case are the type which can be condoned. Circumstances alone may supply insuperable difficulties. There are human limitations. A shadow in a roentgenogram is but a shadow, and anyone might mistake a gallstone for a stone in the right kidney, or a calcified gland for either.

"Sad to confess, mistakes from incomplete examination form the largest class. Nearly all avoidable blunders result from this cause. Insufficient examinations are due usually to lack of time, sometimes to laziness. There are, of course, patients who object to complete and thorough examination. This can never be a satisfactory excuse; a case should be relinquished when it cannot be sufficiently studied. 'It is better,' warns Abrahams, 'to lose a patient than to lose a reputation.'

"Bissell and Le Count have analyzed the relations of the clinical diagnosis to the post-mortem findings in two hundred deaths in coma. In brief, their study has shown that there is a gradual increase in the number of correct diagnoses with the length of time under observation.

"There is, then, one class of mistakes which can be condoned. This class is bounded by human limitations. The others are avoidable. Mistakes due to gross ignorance and faulty judgment may be overcome and are being overcome by increased preliminary requirements and improvement in medical education and by an endeavor on the part of most physicians to keep abreast with the advance in medical knowledge. Mistakes due to lack of time and thorough study will be overcome when physicians resolve to study each case thoroughly with the use of the many available accessories to medical practice."

Editorial Clippings.

FOOT-AND-MOUTH DISEASE—ITS RELATION TO THE PUBLIC HEALTH.

Foot-and-mouth disease is essentially a disorder of certain domesticated animals, chiefly cattle and hogs, more rarely sheep and goats, and exceptionally dogs and cats. The control and eradication of the disease is a function of the authorities in charge of communicable diseases in animals—in this country, of the

Bureau of Animal Industry. The measures which they find necessary to employ are most drastic, but are followed apparently by results which justify the large expense involved.

Although European investigators have shown that it is possible to produce artificially a strong, though possibly rather transient, immunity, the procedure has not as yet been put upon a practicable economic basis. Until the ultramicroscopic cause of this disease shall have been cultivated upon artificial medium there seems little likelihood of improvement upon the present eradication measures, which involve wholesale destruction of infected herds, and onerous quarantine procedure. The spread of the disease is attributed in no small part to the carrying of the infection on the hands or clothing of persons who examine milk, or otherwise come in contact with diseased animals.

If this be the case, then it must be true that many persons come into the most intimate contact with the virus during an epizootic which, taken in connection with the extreme rareness of the disease in human beings, argues a marked insusceptibility on the part of mankind. Nevertheless, a number of cases have been reported in man, a few of which, chiefly in children, have resulted fatally. Most of the human cases have been acquired by drinking the milk of infected cattle, and this seems the means of transmission most to be feared, although more intimate contact with diseased animals accounts for some of the cases.

Prevention of the disease in human subjects will therefore involve: The eradication of the epizootic by means directed against the diseased animals; the avoidance of the human consumption of all milk and unheated milk products known to come from diseased herds; boiling or efficiently pasteurizing milk from herds which have been exposed to infection, and observing such measures as changing the clothing and disinfecting the hands after contact with diseased animals.

The case of foot-and-mouth disease affords another illustration of the fact that for municipal supplies boiled and pasteurized milk are the only fresh forms which can be relied upon to be without danger as regards the transmission of infectious diseases to man. Milk containing the germs of this disease could readily be dispensed from the best regulated dairy before those in charge were aware of the existence of the infection.

While the effort to obtain clean milk should not be relaxed in any particular in the interest of health and of common decency, it is evident that the most rigid measures which can be devised must at times be inadequate to prevent the introduction of the germs of infectious diseases to the product, and that supplementary treatment, the most practicable being pasteurization, is a necessity.

In referring to pasteurization of milk supplies, it is essential that efficient pasteurization be stipulated, by which is meant heating of the whole body of the milk to such a temperature and for such a length of time as is necessary to kill the nonspore-bearing germs of disease, under such official supervision as may be necessary to secure the end desired.

The disease in man is characterized by a febrile period lasting for a few days, followed by the appearance of vesicles on the mucous membranes of the mouth and more rarely of the nose and throat. Similar lesions are sometimes noted on the hands and occasionally on the feet or other portions of the skin surface. The vesicles soon rupture, leaving ulcerating surfaces which may be rather obstinate in healing. Owing in part to the loss of appetite, but more to the difficulty of eating, there is often a considerable loss of flesh. In fatal cases extensive lesions of the lungs, gastrointestinal tract, serous membranes, and heart muscle have been found at autopsy.—Public Health Reports.

Abstracts.

NERVOUS SYPHILIS.

After referring to previous studies reported, and reviewing the literature, U. J. Wile and J. H. Stokes, Ann Arbor, Mich. (Journal A. M. A., March 20, 1915), give the results of further study of six cases of syphilis in the primary stage following the same methods as those previously outlined. None of the six can be rated as entirely normal in all the particulars of the examination. The duration of the secondary incubation period up to the time of examination averaged five weeks in four of the cases. In one case the lesion was so inconspicuous as to make its age hard to state, and in another the patient was ignorant and unobserving. It is worth nothing that the inconspicuous lesion gave rise to the most definitely positive central

nervous involvement of any in the series. Palpable general adenopathy seems also unreliable as a test of generalization of the infection from the primary source. It was, so far as could be detected, present in only two of the six cases. In the previous communication, attention was called to the sensitiveness of the optic nerve as an index to central nervous involvement. In this series of six cases, spread of the infection from the primary source would seem to have anticipated the ordinary frank cutaneous and systemic signs. In five there was a neuroretinitis. In one, early choroidal changes had occurred, and in another, arteriosclerosis, possibly alcoholic. Positive neurologic findings were present in three out of the six; in all three exaggerated deep reflexes of the lower limbs occurred. In two the Romberg test was positive; in the case of the alcoholic the pupils were sluggish and unequal. One patient had sensory disturbance in the toes. The cerebro-spinal fluid findings gave the most tangible evidence of early meningeal reaction to the syphilitic infection. The cell count was above normal in two. In one of these a remarkable pleocytosis was found (200 cells). Chronic alcoholism may be considered in this case. The albumin and globulin content was definitely increased in two of the four cases and more marked in the alcoholic. The Wassermann, on the other hand, was the least sensitive in the serum findings, while it was already positive in the five cases examined. From their studies, and from those of others, Wile and Stokes are inclined to believe that actual involvement of the cerebro-spinal axis may be present without any other changes in the spinal fluid so generally accepted as criteria of central nervous involvement. That they may, and not infrequently do, precede the secondary skin and mucous membrane eruptions, is now established. The cases where there is central nervous involvement without obvious changes in the spinal fluid are, they say, probably due to the involvement of the nervous system itself, rather than the meninges. Positive Wassermann in the fluid, increased lymphocytic count or increase in organic solids, while delicate tests, are not always present in syphilitic disease, and anyone may be present without the others. The authors make a suggestion that the time of making the puncture may have considerable to do with the positive changes present, as in paresis frequent punctures show considerable

variability. Their conclusions are as follows: "1. The nervous system may be, and probably is, frequently involved before there are other evidences of the hematogenous spread of the treponema pallidum from the site of the initial sore. 2. Such involvement may be slight as far as clinical symptoms go, and may not be accompanied by changes in the spinal fluid, as measured by our present methods. 3. Serious involvement, however, may occur extremely early with very marked changes in the cerebro-spinal fluid and with definite impairment of nervous function. 4. The clinical changes most commonly noted in this preroseolar period are: headache, involvement of the second and eighth nerves, and increased reflexes. Of these, the headache is most commonly associated with demonstrable changes in the spinal fluid. 5. Absence of any of the three accepted criteria of nervous system involvement in the spinal fluid can be accepted as negating the presence of syphilis of the brain, meninges or cord only when a careful examination fails to reveal any symptoms pointing to involvement."

PSORIASIS.

E. D. Holland, Hot Springs, Ark. (Journal A. M. A., March 13, 1915), reports three cases of psoriasis, treated by vaccines with success. The first patient had developed tonsillitis and bronchitis, during which the psoriasis seemed to suggest to him that it might be in this case an infection. He therefore made an autogenous vaccine from a culture from the tonsils and ceased treating the stomach, which he had begun some five weeks before. In two weeks after the use of vaccines, the psoriasis had entirely cleared up. Eight months later the patient reported it had not reappeared. The other two cases were treated with a mixed vaccine of streptococcus, staphylococcus and micrococcus catarrhalis, with similar results. He is now giving the remedy a more extensive test and hopes to report further successes.

NITROUS OXID GAS IN OBSTETRICS.

F. W. Lynch, Chicago (Journal A. M. A., March 6, 1915), reports that since July, 1913, he has used nitrous oxid gas in long continued analgesia in obstetric work, and has kept it up for more than an hour in thirty-four cases. The method used must not be confounded with the older use of gas for com-

plete anesthesia about the time of actual birth. He uses a nosepiece such as that employed by dentists, and the patient is told to breathe deeply but rapidly through the nose. Five or six respirations produce analgesia, and then the nosepiece is put over the mouth, the patient told to breathe through the mouth, and the analgesia is maintained by mixing oxygen with the gas until the end of the pain.

A NEW TREATMENT OF EPILEPSY BASED UPON PATHOGENESIS.

By Tom A. Williams, M. B., C. M., Edin.,
Washington, D. C.

Published in The Interstate Medical Journal
and Review of the Neurology and
Psychiatry, April, 1915.

The general assumption that the cause of epileptic convulsions is cerebral defect only is contradicted by the occurrence of convulsions in uremia and puerperal eclampsia. In these conditions the convulsions cease along with the toxicosis. Experimental induction of epileptic seizures by absinthe corroborate this.

As not every cortical injury or neoplasm produces epilepsy, the author assumes a toxic factor in addition. The leucocytosis, digestive disturbance, urinary toxicity and excess of serum nitrogen which many cases show, are confirmative.

Two modes of treatment present themselves aside from the reprehensible attempt to narcotize cerebral irritability which only deceives the therapist, but does not cure the disease. The first is to increase elimination; this aim is inadequate as not attacking the source of the disease, and some of the procedures used, particularly purgation, are injurious in still further disturbing nitrogenous metabolism.

The experiment attempted by the author was to prevent the toxic condition supposed to cause the attack. This he did in the cases described (1) by a limitation of the dietary protein, (2) by giving most of this at midday so that it may be metabolized before sleep. (3) by facilitating osmosis through giving abundantly of the salts of the alkalies as fruits and vegetables, (4) by supplying sufficient calories by means of the fatty and carbohydrate foods, (5) by preventing constipation by means of an adequate bulk of non-

putrescible pabulum. These principles are embodied in the "model diet."

A girl of fifteen showing renal inadequacy, who had epileptic attacks for four years, has remained well since the treatment began in February, 1914.

A man of twenty-seven who had attacks for four years, which were rapidly aggravating, has had none since he was prescribed for in 1911.

Holiday excesses provoked an attack in a schoolboy three years ago: a proper regime restored him to health. He is not under observation, but only one other attack is said to have occurred.

The attacks of a man with sclerotic changes of the brain were quickly cut short by the "model diet."

The relation of migraine to epilepsy is mentioned; and a case of recurrent headache is chosen to illustrate the common pathogenesis and cure. Finally, the purely secondary role of emotion is indicated.

PROGRAM

Thirty-ninth Annual Session

OF THE

ARKANSAS MEDICAL SOCIETY

Little Rock, May 3, 4, 5, 6, 1915.

Headquarters, New Capital Hotel.

President—St. Cloud Cooper, Fort Smith.
First Vice President—G. A. Warren, Black Rock.
Second Vice President—R. A. Hilton, El Dorado.
Third Vice President—R. S. Rice, Rogers.
Treasurer—William R. Bathurst, Little Rock.
Secretary—C. P. Meriwether, Little Rock.

Councilor Districts and Councilors, 1914-1915.

First Councilor District—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph Counties. Councilor, M. C. Hughey, Rector. Term of office expires 1915.

Second Councilor District—Cleburne, Fulton, Independence, Izard, Jackson, Sharp and White Counties. Councilor, L. T. Evans, Barren Fork. Term of office expires 1916.

Third Councilor District—Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis and Woodruff Counties. Councilor, T. B. Bradford Cotton Plant. Term of office expires 1915.

Fourth Councilor District—Ashley, Bradley, Chicot, Cleveland, Desha, Drew, Jefferson and Lincoln Counties. Councilor, E. C. McMullen, Pine Bluff. Term of office expires 1916.

Fifth Councilor District—Calhoun, Columbia, Dallas, Lafayette, Ouachita and Union Counties. Councilor, J. S. Rinehart, Camden. Term of office expires 1915.

Sixth Councilor District—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Se-

vier Counties. Councilor, C. A. Archer, DeQueen. Term of office expires 1916.

Seventh Councilor District—Clark, Garland, Hot Spring, Montgomery, Saline, Scott and Grant Counties. Councilor, J. F. Rowland, Hot Springs. Term of office expires 1915.

Eighth Councilor District—Conway, Johnson, Faulkner, Perry, Pulaski, Yell and Pope Counties. Councilor, W. A. Snodgrass, chairman, Little Rock. Term of office expires 1916.

Ninth Councilor District—Baxter, Boone, Carroll, Marion, Newton, Searcy, Stone and Van Buren Counties. Councilor, A. M. Hathecock, Harrison. Term of office expires 1915.

Tenth Councilor District—Benton, Crawford, Franklin, Logan, Sebastian, Madison and Washington Counties. Councilor, J. T. Clegg, Siloam Springs. Term of office expires 1916.

Delegates to the American Medical Association.

M. V. Laws, Hot Springs (term expires); Robert Caldwell, Little Rock (term expires 1916).

Alternates—C. E. Bentley, Little Rock (term expires); J. T. Clegg, Siloam Springs (term expires 1916).

COMMITTEES.

Committee on Arrangements.

Frank Vinsonhaler, Little Rock, chairman.
William R. Bathurst, Little Rock.
Thomas H. Cates, Little Rock.

Committee on Scientific Program.

William R. Bathurst, chairman, Little Rock.
Robert Caldwell, Little Rock.
C. P. Meriwether, Little Rock (ex officio).

Committee on Legislation.

Frank B. Young, chairman, Little Rock.
C. W. Garrison, Little Rock.
W. F. Smith, Little Rock.
Horace E. Ruff, Heber Springs.
John W. Meek, Camden.
St. Cloud Cooper, Fort Smith (ex officio).
C. P. Meriwether, Little Rock (ex officio).

Committee, Board of Visitors to the Medical Department, University of Arkansas.

R. C. Dorr, chairman, Batesville.
L. J. Kosminsky, Texarkana.
R. A. Hilton, El Dorado.

Committee on Necrology.

H. H. Niehuss, chairman, El Dorado.
J. T. Clegg, Siloam Springs.
R. H. T. Mann, Texarkana.

Committee on Trained Nurses.

W. A. Snodgrass, chairman, Little Rock.
Leonard R. Ellis, Hot Springs.
Earle H. Hunt, Clarksville.

Committee on Health and Public Instruction.

T. B. Bradford, chairman, Cotton Plant.
M. S. Dibrell, Van Buren.
J. H. Southard, Fort Smith.

Committee on Sanitation and Public Hygiene.

Leonidas Kirby, chairman, Harrison.
Edwin F. Ellis, Fayetteville.
Thomas Douglass, Ozark.

Committee on Memorial Tablet in Memory of Dr. John S. Shibley.

L. P. Gibson, chairman, Little Rock.
J. G. Eberle, Fort Smith.
A. E. Hardin, Fort Smith.
Frank Vinsonhaler, Little Rock.
M. D. Ogden, Little Rock.

ANNOUNCEMENTS.

All meetings will be held in the old Presbyterian Church, northwest corner East Capitol Avenue and Scott Street. The commercial, scientific exhibits and the Registration Bureau will be located in this building. A large room separated from the session hall has been set aside for the accommodation of exhibitors and for the Registration Bureau.

ENTERTAINMENTS.

The Ladies' Reception Committee will look after the comfort of the visiting ladies.
Monday Evening—Smoker: County Secretaries' Association, Hotel Marion.
Tuesday Evening—Alumni meetings.
Wednesday Evening—Reception at the residence of Dr. F. Vinsonhaler, 500 East Ninth Street.
Thursday Evening—Public health session.

NOTICE.

All papers read at this meeting are the property of the Arkansas Medical Society, and as soon as read should be handed to Mr. F. S. Overton, stenographer.

Papers will be limited to twenty minutes in their reading, and all discussions limited to five minutes.

PROPOSED AMENDMENTS TO BE VOTED ON AT THIS MEETING.

That Section 1, Chapter IV, of the By-laws be amended by striking out the words "before that," thus making the section read that the House of Delegates shall meet on the first day of the annual meeting instead of the day preceding, as now provided.

That Section 5, Chapter IX, of the By-laws be amended by striking out the words "who is a graduate of a reputable medical college." This will make the section read that every reputable and legally registered physician, who does not practice or claim to practice, nor lend his support to any exclusive system of medicine, shall be eligible to membership.

HOUSE OF DELEGATES.

The regular annual meeting of the House of Delegates of the Arkansas Medical Society will be held on May 3, 1915, at 2 p. m., at the old Presbyterian Church, East Capitol Avenue and Scott Street, Little Rock.

St. Cloud Cooper, president.

C. P. Meriwether, secretary.

Calling meeting to order, by St. Cloud Cooper, president.

Invocation, by Rev. Sam Campbell, pastor Second Baptist Church.

Address of welcome, by A. E. Harris, Little Rock.

Response to the address of welcome on behalf of the delegates of the Arkansas Medical Society, by T. B. Blakely, Coal Hill.

Appointment of Committee on Credentials.

Calling roll of delegates.

Reading of minutes of the last meeting.

Appointment of Reference Committee.

President's address to the House of Delegates

Report of Committee on Scientific Program—William R. Bathurst, Little Rock, chairman.

Report of Committee on Legislation—Frank B. Young, Little Rock, chairman.

Report of Committee, Board of Visitors to the Medical Department of the University of Arkansas—R. C. Dorr, Batesville, chairman.

Report of Committee on Necrology—H. H. Niehuss, El Dorado, chairman.

Report of Committee on Trained Nurses—W. A. Snodgrass, Little Rock, chairman.

Report of Committee on Health and Public Instruction—T. B. Bradford, Cotton Plant, chairman.

Report of Committee on Sanitation and Public Hygiene—L. Kirby, Harrison, chairman.

Report of Committee on Memorial Tablet in Memory of Dr. John S. Shibley—L. P. Gibson, Little Rock, chairman.

Report of Delegates to the 1914 Session of the American Medical Association—M. V. Laws, Hot Springs.

Report of Committee on Arrangements—F. Vinsonhaler, Little Rock, chairman.

Report of the Council—W. A. Snodgrass, Little Rock, chairman.

Report of the secretary.

Report of the treasurer.

Reading of communications.

Reading of memorials and resolutions.

Selection of the Nominating Committee.

Selection for the State Board of Medical Examiners.

Miscellaneous business.

Adjournment, subject to call of the president.

THIRTY-NINTH ANNUAL MEETING.

Tuesday, May 4.

General Session, 9 A. M.

Calling the society to order, by St. Cloud Cooper, president.

Invocation, by Rev. John Van Lear, pastor, First Presbyterian Church.

Address of welcome, by Hon. Chas. E. Taylor, mayor of Little Rock.

Address of welcome, by J. B. Dooley, president, Pulaski County Medical Society.

Response to the address of welcome on behalf of the Arkansas Medical Society, by J. B. Roe, New-ark.

President's annual address, by St. Cloud Cooper, Fort Smith.

Adjournment.

Scientific Session, May 4, 5, 6.

The scientific session will begin immediately after adjournment of the general session and will continue until Thursday evening, May 6.

"The Green Fly (Lucilia Caesar) as the Universal Destroyer of Motor Function and of Life"—By E. W. Saunders, St. Louis.

"A New Conception of Cancer with Its Practical Application"—By William Carpenter MacCarty, Rochester, Minn.

"The Lymphoid Tissue"—By H. H. Kirby, Little Rock.

"Congenital Malaria"—By Henry Thibault, Scott.

"Rational Therapeutics"—By Thos. Douglass Ozark.

"The Early Symptoms of Mental Disease"—By D. W. Roberts, Little Rock.

"Adiposa Dolorosa"—By Charles H. Cargile, Bentonville.

"Diagnosis and Treatment of Hookworm"—By S. J. McGraw, El Dorado.

"Etiology, Pathology and Treatment of Pneumonia"—By E. G. Epler, Fort Smith.

"Typhoid Fever"—By T. B. Blakely, Coal Hill.

"Foreign Bodies of the Trachea and Bronchi, with Report of Five Additional Cases"—By R. H. T. Mann, Texarkana.

"Posterior Deviations of the Uterus"—By W. B. Center, Garland.

"Vincent's Angina and Its Relation to Tonsillar Gangrene"—By William Breathwit, Pine Bluff.

"Papilloma of the Bladder and Its Management"—By Allen E. Cox, Helena.

"Simple Apparatus for Intratracheal Anesthesia" (Demonstration)—By D. Gann, Jr., Little Rock.

"Carbon Dioxid Snow in Dermatology"—By D. W. Goldstein, Fort Smith.

"The Presentation of a Few Patients of Tuberculosis, Bright's Disease and Diabetes—Some of Them Associated with Arterial Sclerosis"—By D. C. Walt, Little Rock.

"Hydrotherapy"—By C. Travis Drennen, Hot Springs.

"Visceroptosis"—By M. D. Ogden, Little Rock.

"An Etiologic Factor in Psoriasis and Allied Skin Diseases"—By Abner H. Cook, Jr., Hot Springs.

"Mastoiditis"—By J. W. Ramsey, Jonesboro.

"Trachoma"—By C. N. Pate, Little Rock.

"Tonsillectomy with Local Anesthesia"—By H. H. Rightor, Helena.

"The Course and Diagnosis of Splenic Anemia"—By Wm. H. Deaderick, Hot Springs.

"Nervus Terminalis in Man"—By Charles Brookover, M. S., Ph. D., Professor of Histology and Embryology, Medical Department, University of Arkansas.

"Helping Humanity"—By T. B. Bradford, Cotton Plant.

"The Study of Infant Mortality, with Special Reference to Conditions in Arkansas"—By H. H. Niehuss, El Dorado.

"Ectopic Pregnancy"—By William A. Snodgrass, Little Rock.

"Then, Now and Between"—By C. J. March, Fordyce.

"Alcoholic Neurosis"—By S. W. Colquitt, McKamie.

"The State Hospital for Nervous Diseases"—By F. B. Young, Little Rock.

"Ament the General Practitioner"—By Don Smith, Hope.

"Preliminary Report on Lesions of the Nervous System in Pellagra"—By A. C. Shipp, A. M., M. D., Professor of Pathology and Bacteriology, Medical Department, University of Arkansas, and D. A. Rhinehart, A. M., M. D., Associate Professor of Anatomy, Medical Department, University of Arkansas.

Oration on Surgery—By Jabez N. Jackson, F. A. C. S., Kansas City.

Report of the Eye Clinic of the Medical Department, University of Arkansas, 1914-1915—By F. Vinsonhaler, Little Rock.

"Cancer of the Uterus"—By J. G. Eberle, Fort Smith.

"Pyloric Stenosis"—By T. Wistar White, St. Louis.

"The Present Status of Renal Surgery"—By Lewis Wine Bremerman, Chicago.

"Acute Intestinal Obstruction"—By W. F. Smith, Little Rock.

"The Old Man and His Prostate"—By J. P. Runyan, Little Rock.

"The Importance of Treating Diseases of the Accessory Sinuses of the Nose"—By L. H. Lanier, Texarkana.

"Goiter"—By Anderson Watkins, Little Rock.

"Syphilis"—By Preston Hunt, Texarkana.

"Syphilis in Its Relation to Public Health"—By Loyd Thompson, Hot Springs.

"The Endotoxin Reaction"—By E. H. Martin, Hot Springs.

"A Plea for a More Thorough Examination of Patients Suffering from Symptoms of Early Pulmonary Tuberculosis"—By Sam E. Thompson, Carlsbad, Tex.

"Diagnosis and Treatment of Incipient Tuberculosis"—By S. J. Wolfermann, Fort Smith.

"General Anesthesia"—By M. G. Daly, Little Rock.

"Obstetrical Technic"—By E. C. Meyers, Fort Smith.

Subject to be announced—By O. A. Carruth, Little Rock.

"The Abscess of the Umbilical Vein"—By E. E. Barlow, Dermott.

"The Surgical Treatment of Placenta Previa"—By E. L. Beck, Texarkana.

"The Importance of Legitimate Scientific Sexual Union in Development of Character and Production of Contentment and Happiness"—By C. S. Pettus, Little Rock.

"Vital Statistics"—By C. W. Garrison, Little Rock.

"Practical Laboratory Diagnosis"—By J. C. Simpson, Hamburg.

"The Optician Doctor"—By R. H. Huntington, Eureka Springs.

"The Care and Technic of the Preparation of the Patient Before and After a Surgical Operation"—By R. L. Saxon, Little Rock.

"Life Insurance and the Need of Harmony Between Company, Agent and Examiner"—By James P. Lunt, Leonard.

Subject to be announced—By A. C. Jordan, Pine Bluff.

Subject to be announced—Earle H. Hunt, Clarks ville.

Subject to be announced—M. C. Hughey, Rector

GENERAL SESSION.

Thursday Afternoon, May 6, Immediately After the Scientific Session Adjourns.

Calling meeting to order, by St. Cloud Cooper, president.

Unfinished business.

Report of Nominating Committee.

Report of other committees.

Election of officers.

New business.

Selection of place of next meeting.

Adjournment sine die.

PUBLIC HEALTH SESSION

Old Presbyterian Church,

East Capitol Avenue and Scott Street,

May 6, 8 P. M.

"State Board of Health"—By C. W. Garrison, chief health officer, State Board of Health, Little Rock.

"Importance of Sanitation"—By E. C. Meyers, Fort Smith.

"Public Health as an Economic Factor"—By Henry Thibault, Scott.

"The Relation of the Physician to the Public Health, and His Obligations"—By O. L. Williamson, Marianna.

"What Tuberculosis Cases Are Unsuitable for Sanatorium Treatment"—By F. Pitt Baker, Arkansas Tuberculosis Sanatorium, Booneville.

PROGRAM
of the
Second Annual Meeting
of the
SECRETARIES' ASSOCIATION OF THE
ARKANSAS MEDICAL SOCIETY

Little Rock, May 3, 1915.

New Capital Hotel, 8 P. M.

President's Address—By H. H. Niehuss, El Dorado.

"County Societies"—By J. B. Dooley, Little Rock. Discussion by H. R. McCarroll, Walnut Ridge; J. T. Palmer, Pine Bluff, and L. H. Lanier, Texarkana.

"Our State Society President"—By St. Cloud Cooper, Fort Smith.

"Our State Secretary"—By C. P. Meriwether, Little Rock.

"Our Council"—By William A. Snodgrass, Little Rock.

"Our Medical Journal"—By William R. Bathurst, Little Rock.

"Our Association of County Secretaries"—By Thomas Douglass, Ozark.

THE COMMERCIAL EXHIBIT

BOOKS, INSTRUMENTS, APPLIANCES, DRUGS,
FURNITURE, ETC., TO BE SHOWN AT
LITTLE ROCK.

The commercial exhibit at the Little Rock session will have commodious quarters, convenient to telephone, the scientific exhibit, the registration desk, etc.

Books, surgical instruments, diagnostic and therapeutic appliances, electric and x-ray apparatus and many other specialties of practical value for use in the medical art will be found in the exhibit room. The whole exhibit will be of such interest and educational value that physicians will derive not only a great deal of pleasure, but from a careful inspection of the various displays should absorb many new ideas.

A well-known pharmaceutical house will be represented and reservations have been received from a number of other exhibitors who have not submitted description of their wares.

HETTINGER BROS. MANUFACTURING CO., KANSAS CITY, MO.

This firm will present the latest and most interesting and practical things that have recently come on the market. They will exhibit a full line of high-grade surgical instruments, including all the new things for the general and eye, ear, nose and throat operators, as

well as items of equipment for the general practitioner.

THE MAX WOCHER & SON CO., CINCINNATI, O.

This house is well known as one of the oldest in the United States and making an exceedingly high-grade product. They will be represented by Mr. Alban. He will exhibit a complete line of physicians' supplies, hospital and office furniture, surgical instruments, electrical appliances and a portable x-ray apparatus. Among these will be many new articles which will no doubt be of unusual interest to the surgeon and diagnostician.

THE GWINNER-MERCERE CO., MEMPHIS, TENN.

This company will be represented by Mr. January. He will exhibit a line of surgical instruments, operating tables, instruments cabinets, aseptic furniture and other useful specialties adapted to the needs of the up-to-date physician.

J. A. MAJORS CO., NEW ORLEANS, LA.

This company will be represented by W. H. Haywood. They will have an exhibit of the medical books published by W. B. Saunders Co. of Philadelphia. A large number of important medical books will be shown, and well worth careful inspection.

THE RED CROSS WATER STILL CO.

This exhibit will consist of the complete installation of one of their latest model water stills, which will be in operation at all times. It will be connected to a water tank to take care of the hot water as it comes from the still from the condenser. These stills are made of aluminum, copper and brass. They are very attractive and require little space in the kitchen.

The exhibit of a domestic still should prove to be very popular, as it is absolutely new and novel, and one of the most perfect arrangements in the way of a water still on the market.

Ice cold distilled drinking water will be served free at this booth.

THE ABBOTT ALKALOIDAL CO.

Manufacturing Chemists, Chicago

Personals and News Items.

Read the advertising pages as carefully as you do the rest of The Journal. You will find them interesting.

Dr. James I. Scarborough of Newport has located in Little Rock.

Dr. C. E. Robinson of Clarksville has moved to Little Rock.

Dr. E. L. Watson of Newport recently visited in Little Rock and Hot Springs.

Dr. O. C. Hankinson of Little Rock has moved his office from the Hollenberg Building to Rooms 1 and 2, over McClerkin's drug store.

Dr. E. C. Moulton has associated himself with his father, Dr. H. Moulton, at Fort Smith, in practice limited to diseases of the eye, ear, nose and throat.

Dr. R. M. Eubanks, recently of St. Luke's Hospital, Little Rock, has opened offices with Dr. C. E. Robinson in the Bankers Trust Building.

The summer course for general practitioners given by the Medical Department of the University of Arkansas, Little Rock, begins May 15 and ends June 12, 1915.

Dr. S. T. Rucker, superintendent of the Lynhurst Sanitarium, announces that he has erected a new sanitarium in the suburbs of Memphis, with special facilities for treating patients with mild nervous disorders, alcohol and drug addictions.

New advertisers in this issue include: A. B. Poe, Walk-Over Boot Shop, New Capital Hotel, Faust Cafe, The Electric Shop, Metropolitan Cafe, Peoples Savings Bank, Hegarty Drug Company, and the Buick Automobile Company, Little Rock.

Arkansas physicians visiting in Little Rock during the past month include: J. B. Wharton, El Dorado; J. R. Lynn, Hazen; L. M. Crow, Des Arc; J. W. John, Pine Bluff; S. W. Colquitt, McKamie; Loyd Thompson and J. L. Greene, Hot Springs; F. T. Murphy, Brinkley; T. E. Benton, Lonoke; E. T. Bramlitt, Malvern; S. J. Hesterly, Prescott; E. J. Byrd, Millville; W. G. Eberle, Fort Smith; J. C. Hughes, Walnut Ridge; J. H. Stidham, Hoxie.

THE PAN-AMERICAN CONGRESS.

The Seventh Pan-American Congress will meet in San Francisco, June 17-21, inclusive.

It assembles pursuant to invitation of the president of the United States issued in accordance with an act of Congress approved March 3, 1915.

The countries and colonies embraced in the Congress are the Argentine Republic, Bolivia, Brazil, Canada, Columbia, Cuba, Chile, Costa Rica, El Salvador, Ecuador, Guatamala, Honduras, Haiti, Hawaii, Mexico, Martinique, Nicaragua, Panama, Paraguay, Peru, Santo Domingo, United States, Uruguay, Venezuela, British Columbia, Dutch Guiana, French Guiana, Jamaica, Barbadoes, St. Thomas and St. Vincent. The organization of the Congress is perfected in these countries and the majority of them have signified their intention to be represented by duly accredited delegates.

The Congress will meet in seven sections, namely: (1) Medicine; (2) Surgery; (3) Obstetrics and Gynecology; (4) Anatomy, Physiology, Pathology and Bacteriology; (5) Tropical Medicine and General Sanitation; (6) Laryngology, Rhinology and Otology; (7) Medical Literature.

All members of the organized medical profession of the constituent countries are eligible and are invited to become members. The membership fee is \$5.00, and entitles the holder to a complete set of the transactions. Advance registrations are solicited and should be sent with membership fee to the treasurer, Dr. Henry P. Newman, Timken Building, San Diego, Cal.

The general railroad rate of one fare for the round trip, good for five months, made on account of the Panama-Pacific Exposition at San Francisco, and the California Exposition at San Diego, is available for the Pan-American Medical Congress.

The Palace Hotel will be headquarters.

The first Pan-American Medical Congress was most successfully held in the United States in 1893. Five intervening Congresses have been held in Latin-American countries. It now devolves upon the medical profession of the United States to make this, the seventh, the most successful in the series.

CHARLES A. L. REED, President, Union Central Building, Cincinnati.

HARRY M. SHERMAN, Chairman Committee of Arrangements, 350 Post Street, San Francisco.

RAMON GUIERAS, Secretary General, 80 Madison Avenue, New York City.

PHILIP MILLS JONES, Special Committee on Hotels, 135 Stockton Street, San Francisco.

WHY WE SHOULD HAVE A WAR AGAINST CANCER.

From the Commission on Cancer of the Medical Society of the State of Pennsylvania.

It is a fact that cancer kills about 75,000 people in the United States every year. Any disease which causes such a high annual toll should command the careful attention of the government, the medical profession, and the people. The need for this careful attention is all the more imperative if both the morbidity and mortality can be very largely reduced by co-operation on the part of these three forces, *i. e.*, the government, its people, and their physicians.

The reduction that has been caused in tuberculosis is now a matter of history. There can be no doubt that similar well-directed and persistent activity would cause a similar effect in cancer.

The key to the reduction of cancer mortality lies precisely in this: That cancer always begins as a purely local disease involving a strictly limited area. Second, that this limited area is accessible in about four-fifths of all cases; and third, and most important, a commencing cancer practically always indicates its presence when it is still in its early, locally limited and permanently curable stage. In other words, the enemy that we have to fight is not the cancer, but the delay. Nearly 60,000 of our people die every year, not because they have cancer, but because they have waited till the cancer became incurable.

The causes for delay are, first, that the people know little or nothing about cancer. The layman or laywoman does not know that certain evident signs and symptoms mean that cancer is insidiously creeping on them and will be fatal unless recognized and checked in time. So that a large proportion of our 60,000 unnecessary cancer deaths occur because the people do not know. If a woman has a right to kill another human being to save her own life when attacked, how much more has she the right to know that a fatal disease has begun its attack on her? A woman who loses her life at forty, simply because she never knew that irregular vaginal bleedings indicated the presence of a cancer while it was in its early curable stage, certainly has not had her fair chance at the hands of civilization. If our people are dying because they do not know, we, the doctors, must teach them. We must teach

women that a lump in the breast, no matter how small or how painless, may be the starting point of a serious condition and must at once be investigated by a competent physician. We must teach women that irregular vaginal bleeding, the onset of a discharge, etc., may be early warning symptoms of cancer of the uterus. We must teach all people that a mole or a wart which begins to grow, bleed, or ulcerate, is a danger sign that must be heeded at once. There are similar early signs in other portions of the body that may forewarn people, and of which they should have accurate knowledge.

There is also a great field in the conditions marked by chronic irritation and the so-called precancer lesions. Recent statistics show that in about 40 per cent of cases the cancer, the malignant disease, was preceded by long-continued simple diseases or by some form of chronic irritation. In other words, a large proportion of cancerous people need not have had the disease at all if they had been forewarned and had their precancerous condition cured.

The second great problem lies with us as medical men. Are we as active in the treatment of precancerous diseases as we should be, or do we only too often put our patients off with some placebo and advise them not to worry? Do we always insist on a thorough examination when a patient comes to us with symptoms that may mean cancer? When an early cancer is present, do we always lay proper emphasis on the necessity for proper treatment at once? Do we not too often advise the one course which can yield to disaster and tell our patients to wait and see what develops, *i. e.*, wait till the cancer becomes inoperable? Unfortunately, at the present time these questions must be answered to our disadvantage. A recent extensive investigation has shown that on an average the family physician has had his cases of cancer under observation for about a year before they come to a real attempt to cure the disease. Our attitude to cancer needs to undergo a radical change. The average of one year's observation must be cut down to a few weeks, or, best, to a few days. Immediate attention to the precancerous condition, counsel in the doubtful cases, and immediate action in the positive cases, is the only proper service we can give our patients. To do this we need a campaign amongst ourselves, too. A new and more efficient spirit must be cre-

ated which will result in constant watchfulness to keep our patients from swelling the thousands of untimely and unnecessary deaths from cancer.

To arouse the profession fully to the necessities in the war against cancer, a movement has been started by which, during the present few months, state and county societies all over the country are devoting special meetings to the study of cancer, and in addition the vast combined influence of American medical journalism has been enlisted, and The Journal of the Arkansas Medical Society has united with The Journal of the Pennsylvania Medical Society and other medical journals to provide for its readers special cancer numbers. It would seem from the number of journals co-operating that the message must be brought directly to every medical man. We are sure that in this way the interest of the medical profession will be aroused for years to come, and we are sure that the time will soon be at hand when no blame for participation in the fatal delay can ever be laid at the door of an American physician.

PROGRAM

OF THE

FIRST DISTRICT MEDICAL SOCIETY MEETING

TO BE HELD AT

Jonesboro, April 27, 1915.

Tuesday, 10 A. M.

Prayer—Rev. H. E. Wheeler, Jonesboro.

Song, "My Country 'Tis of Thee"—The Ladies of Jonesboro.

Address of Welcome—Mayor of Jonesboro.

Response—Councillor M. C. Hughey, M. D., Rector.

Secretary-Treasurer's Report—J. Phillip Lunt, M. D., Leonard.

President's Address—J. Max Watkins, M. D., Walnut Ridge.

"Our National Food and Drugs Act"—Guy Black, M. D., Pocahontas.

"Needed Inspection of Those Engaged in the Preparation of Our Food, as Well as Inspection of Their Establishments"—M. V. B. Waddle, M. D., Success.

"Our Railroads and the Spread of Contagious Disease"—G. A. Warren, M. D., Black Rock.

"Measures Necessary to Prevent Our More Common Epidemics"—O. Howton, M. D., Osceola.

"Educating the People to Know That Breaking Nature's Laws Leads to Sickness"—H. A. Stroud, M. D., Jonesboro.

"The Enactment of Laws and the Enforcement of Present Laws Looking Toward the Betterment of Future Generations"—Governor George W. Hays, Little Rock.

"Malaria; Its Relation to the Public Health of the South"—R. H. Von Ezdorf, Mobile.

"Quarantine and Segregation as the Means of Preventing the Spread of Disease, and How Best Applied"—St. Cloud Cooper, Fort Smith.

A paper (title to be selected)—Prof. N. H. Bright, Walnut Ridge.

"The State Board of Health and Its Duties"—C. W. Garrison, M. D., Little Rock.

"Crime Treated as a Disease"—J. L. Greene, M. D., Hot Springs.

"Institutional Treatment of Our Insane"—F. B. Young, M. D., Little Rock.

"Needed Laws Regulating the Marriage of Those Mentally Defective"—Hon. W. O. Irby, Piggott.

"Compulsory School Law and Forced Medical Inspection of All School Children"—H. R. McCarroll, M. D., Walnut Ridge.

"Good Roads and Disease"—Hon. Dud Bassett, Walnut Ridge.

"The Harrison Anti-Narcotic Law"—C. P. Meriwether, M. D., Little Rock; R. W. Ratcliffe, M. D., Hon. Horace Sloan and Prof. Chapin, Jonesboro; E. T. Ponder, M. D., Walnut Ridge.

"The Care of the Eyes"—J. Wilson Ramsey, M. D., Jonesboro.

"The Teaching of Personal Hygiene in Our Public Schools"—B. F. Walker, M. D., Nettleton.

"The Bureau of Vital Statistics and the Benefits Derived from Same"—P. W. Lutterloh, M. D., Jonesboro.

"The relation of Venereal Disease to Pelvic Surgery"—W. A. Snodgrass, M. D., Little Rock.

"Prophylaxis of Tuberculosis"—J. C. Swindle, M. D., Walnut Ridge.

"The Patent Medicine Evil"—S. A. Baker, M. D., Paragould.

"Measures Necessary for the Prevention of Malaria"—Earl Craig, M. D., Wilson.

"The Effects of Tobacco on the Human Being"—T. B. Bradford, M. D., Cotton Plant.

Election of officers.

Benediction.

OUR BELGIAN COLLEAGUES.

In ye ancient times there was a cry from Macedonia, "Come and help us." St. Paul took that as the voice of God, and responded with spiritual and mental pabulum. Today there is a cry from Belgium, "Send us food or we perish." This is just as much the voice of God as the cry that reached St. Paul—and the response is even more necessitous. The pictures of wretchedness in that pitiful land grow more and more appalling from day to day. Miss Winifred Holt, secretary of the New York Association for the Blind, has just returned from Europe, where she went in the interest of the blind Belgian refugees. She says there is no exact data, but it is estimated that one person in every 1,200 in Belgium was either partially or totally blind, or about 8,000. When Belgium became the hotbed of war there were thirteen institutions for the blind, deaf and dumb. These were all wrecked and their sorrowing inhabitants poured forth in a mad rush of surging masses of blind men and women and children, seeking such guidance as they could get, groping for places of safety. They must now be scattered among the helpless, starving, unfortunate refugees standing in the bread line that stretches all over Belgium.

The president of the National Relief Commission of Brussels asserted on March 25, that before the next harvest 2,500,000 Belgians will be in the bread line. Foodstuffs must be continued to be provided in the fairly regular way in which they have been supplied heretofore. Belgium has been saved from the intermittent periods of starvation by the personal sacrifices of the directors of the American Commission, who have at these times pledged their personal credit for as much as \$10,000,000. All honor to the commissioners.

We of the medical profession of America must see to it that our Belgian colleagues and their families are saved from such intermittent periods of starvation, by keeping the stream of food and supply boxes pouring in to them in a steady flow.

By DR. J. RIDDLE GOFFE.

New York, N. Y.

Contributions should be mailed to F. F. Simpson, M. D., treasurer, 7048 Jenkins Arcade Building, Pittsburg, Pa.

New and Nonofficial Remedies.

Since publication of *New and Nonofficial Remedies*, 1915, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies:"

CHOLERA SEROBACTERIN, MULFORD (Sensitized Cholera Vaccine).—Marketed in packages of three syringes. H. K. Mulford Co., Philadelphia.

MENINGO-SEROBACTERIN, MULFORD (Sensitized Meningococcus Vaccine).—Marketed in packages of three syringes. H. K. Mulford Co., Philadelphia.

TYPHO-SEROBACTERIN MIXED, MULFORD (Sensitized Typhoid Vaccine).—Packages of three syringes containing graduated mixtures of killed sensitized bacillus typhosus, killed sensitized bacillus paratyphosus A, and killed sensitized bacillus paratyphosus B. H. K. Mulford Co., Philadelphia Pa. (Journal A. M. A., March 13, 1915, p. 909).

During March the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with *New and Nonofficial Remedies*:

Radium Chemical Co.:

Standard Radium Solution for Bathing.

Standard Radium Solution for Drinking.

Standard Radium Earth.

Standard Radium Compress.

The Franco-American Ferment Co.:

Lactobacilline preparations:

The lactobacilline preparations now being advertised direct to the public the Council has voted that their acceptance be rescinded and that these products be omitted from *New and Nonofficial Remedies*. A report explaining this action has been authorized for publication.

Propaganda for Reform.

WATERMAN'S TONIC RESTORATIVE.—Examination in the A. M. A. Chemical Laboratory showed this "epilepsy cure" to be a bromid mixture containing bromid equivalent to 17.6

grains potassium bromid per fluid dram. The recommended daily dose of five teaspoonfuls corresponds to 88 grains potassium bromid. Caring little for the health or safety of those who use the nostrum, the promoters advise an increased dosage if required "to stop the 'fits,'" thus leaving the dosage with the user, who is assured that the nostrum is "safe" (Journal A. M. A., March 6, 1915, p. 847).

DR. KLINE'S NERVE REMEDY.—This "epilepsy cure" is sold by the R. H. Kline Company, 45-47 East Twentieth Street, New York City, this being the same address as that of the Lexington Drug and Chemical Company which sends out the Waterman "epilepsy cure" (see above). Examination in the A. M. A. Chemical Laboratory showed this bromid mixture to be practically identical with Waterman's Tonic Restorative (Journal A. M. A., March 6, 1915, p. 848).

LIQUID PARAFFIN (Liquid Petrolatum).—W. A. Bastedo reports the results of a clinical investigation made under the auspices of the Therapeutic Research Committee of the Council on Pharmacy and Chemistry to determine the relative efficiency of the different preparations on the market. Three specimens were sent out: a heavy Russian liquid petrolatum, a light Russian liquid petrolatum and an American liquid petrolatum—being distinguished only by number or letter. From extended trials in hospitals it is apparent that all acted alike. Only slight differences as to palatability were noted by some (Journal A. M. A., March 6, 1915, p. 808).

SANMETTO.—The Council on Pharmacy and Chemistry finds that Sanmetto is a secret nostrum, the exploitation of which is an invitation to haphazard, uncritical therapy and a menace to public health. It is claimed that "Sanmetto is a blending of true santal and saw palmetto with soothing demulcents in a pleasant aromatic vehicle," but neither the identity of the "demulcents" nor the quantities of the other ingredients are given. The recommendations for the use of Sanmetto are unwarranted, absurd and vicious. The advertising claims are likely to induce some physicians to belittle the importance of diseases of the sexual organs and to be content with the prescribing of Sanmetto to the detriment of the patient and the dan-

ger of the community (Journal A. M. A., March 13, 1915, p. 926).

COLCHI-SAL.—Colchi-Sal is sold by E. Fougere & Co., Inc., in capsules stated to contain the "active principle" of cannabis indica, colchicin, methyl salicylate and "appropriate aromatic adjuvants." It is recommended in "gouty and chronic rheumatic manifestations," "acute cases of gout," "intestinal autointoxication or dyspepsia," "billious headaches," etc. The Council on Pharmacy and Chemistry found Colchi-Sal ineligible for New and Nonofficial Remedies because the indefinite character of the "active principle" of cannabis indica made its composition secret, because it was advertised indirectly to the laity, because unwarranted therapeutic claims were made for it, because the name does not indicate the habit-forming cannabis indica, and because the composition was held unscientific (Journal A. M. A., March 20, 1915, p. 1016).

WATERBURY'S COMPOUND.—Four years ago the Council on Pharmacy and Chemistry reported unfavorably on "Waterbury's Cod Liver Oil Compound." Having been requested to consider again the product, now known as "Waterbury's Compound," the Council found that there was no evidence that it is a substitute for cod liver oil. It held that Waterbury's Compound is advertised with misleading claims, and therefore voted that no further consideration be given to it (Journal A. M. A., March 20, 1915, p. 1016).

STRYCHNIN AND CAFFEIN AS CARDIOVASCULAR STIMULANTS.—F. H. Newburgh has studied the effects of strychnin and caffein in acute infectious diseases. He finds that strychnin sulphate in medicinal doses does not increase the output from the heart, slow the pulse or materially raise the blood pressure. He concludes that there is no logical basis for its use as a cardiovascular stimulant. Further, he finds that caffein sodio-salicylate, in ordinary dosage, does not raise the blood pressure or slow the pulse. His experiments did not determine if caffein increased the blood flow (Arch. Int. Med., March 15, 1915, p. 458).

NEURILLA.—To show how a practically worthless mixture may be exploited by means of ill-considered testimonials, the Council on Pharmacy and Chemistry publishes a report on Neurilla, apparently the sole output of

the Dad Chemical Company. Neurilla, according to the manufacturer's claims, depends for whatever virtues it has on two generally discarded drugs, skullcap and passion flower, present in unstated amounts, "aromatics" and 20.3 per cent alcohol. It is advertised as a "nerve tonic" and is said to be "a valuable aid in the treatment of fevers, colds, la grippe, etc." Inquiries sent to some of the physicians whose testimonials were used to promote Neurilla brought replies indicating these testimonials to have been given thoughtlessly and on insufficient experience. In most cases the writers stated that they had abandoned the use of Neurilla long ago (Journal A. M. A., March 27, 1915, p. 1093).

GUERTIN'S NERVE SYRUP.—This is an epilepsy treatment sold by the Kalmus Chemical Company, Cincinnati, O. Examination in the A. M. A. Chemical Laboratory demonstrated Guertin's Nerve Syrup to be essentially a mixture of several bromids, the bromid content being equivalent to 13.9 grains potassium bromid per fluid dram. The recommended daily dose of 4 to 8 teaspoonfuls is equivalent to 55.6 to 111.2 grains potassium bromid. While possessing all the potency for harm that resides in secret mixtures of the bromids, the purchaser of this nostrum is led to believe that it is harmless (Journal A. M. A., March 27, 1915, p. 1094).

Obituary.

Dr. Daniel N. Fisher, aged sixty-nine years old, died at his home in Benton, Ark., on February 25. Dr. Fisher was born in Posey County, Indiana, November 10, 1845, and moved at an early age to the State of Illinois, coming to Arkansas in 1870. In 1873 he was married to Miss Mary I. Graham, daughter of Dr. A. J. Graham, who yet survives him.

Dr. Fisher for several years practiced medicine in the rural districts of Saline County, moving to Benton in 1885, where he resided continuously until the date of his death.

Dr. Fisher was a graduate of the University of Arkansas, Medical Department, class of 1892, and was one of the oldest physicians, in point of service, in Saline County. Owing to declining health he had not been actively engaged in practice for the past several years.

From the organization of the Saline County Medical Society till 1913 he was an active member of the same, but at the above named date he was made an honorary member of the society, a distinction truly merited and worthily bestowed.

J. W. MELTON,
WARREN KELLY,
J. M. PHILLIPS,
Committee.

County Societies.

POPE COUNTY.

(Reported by L. H. Berryman, Sec'y.)

Russellville, April 1.—The Pope County Medical Society met in this city March 17, with a good attendance and a splendid program. After the program was rendered a luncheon was served and was very much enjoyed by all present.

HEMPSTEAD COUNTY.

(Reported by M. V. Russell, Pres.)

Hope, March 13.—The Hempstead County Medical Society met in this city March 9. The following officers were elected for the ensuing year: M. V. Russell, president; J. S. Waddle, vice president; G. E. Cannon, secretary; J. H. Weaver, delegate to the State Society, and L. J. Gillespie, alternate.

MADISON COUNTY.

(Reported by L. H. Callen, Sec'y.)

Hindsville, April 1.—The Madison County Medical Society met in this city on March 27 and elected the following officers for the ensuing year: President, J. H. Bohannon, Hindsville; vice president, D. C. Roberts, Goshen; secretary-treasurer, L. H. Callen, Hindsville; delegate to the State Society, Fred Youngblood, Huntsville; alternate, L. H. Callen, Hindsville.

MONROE COUNTY.

(Reported by P. E. Thomas, Sec'y.)

The Monroe County Medical Society met in regular session at Clarendon, Tuesday, April 6. President Gilbrech not being present, on account of very urgent out-of-town business, Dr. P. E. Johnson presided.

Members present were: Drs. T. J. Stout, P. E. Johnson, N. E. Murphy, P. E. Thomas,

Sr., J. C. Miller and P. E. Thomas, Jr. Dr. E. H. Beals of Tulane University was a guest.

The secretary presented two clinical cases and Dr. T. J. Stout reported a clinical case.

A paper entitled "The Clinical Value of the Sphygmomanometer" was read by Dr. P. E. Johnson, and discussed by Drs. Murphy and Stout.

An amendment to the Constitution was proposed by Dr. Johnson to make Clarendon the permanent meeting place, instead of Clarendon, Holly Grove and Brinkley, it being more convenient for the members. This will be voted on at next meeting.

All members expressed their intention of attending the state meeting at Little Rock in May. We hope to have a large delegation.

Book Reviews.

Fever; Its Thermotaxis and Metabolism.—By Isaac Ott, A. M., M. D., Professor of Physiology, Medico Chirurgical College, Philadelphia. Published by Paul B. Hoeber, 67-69 East Fifty-ninth Street, New York. Cloth, 166 pages. Price, \$1.50.

The studies upon this subject have occupied the author for forty-five years, as a practitioner of medicine and a physiologist. As the process of fever has been a difficult problem for many years, the medical professor is very fortunate to have Dr. Ott's lectures in book form.

Cancer; Its Cause and Treatment.—By L. Duncan Bulkley, A. M., M. D., Senior Physician the New York Skin and Cancer Hospital. 230 pages. Published by Paul B. Hoeber, 67-69 East Fifty-ninth Street, New York City. Price, \$1.50.

This interesting book from a well-known author treats particularly on the nature, metabolism and relation of diet to cancer. Under the treatment of cancer the author, in considering the etiology, quotes the following: "Luxurious living, and particularly excess in animal food, increases the waste products of the body, and if coupled with insufficient exercise, the waste products are retained in the system and have a tendency to produce abnormal growths.

"Cancer is to a great degree one of the final results of a long-continued course of error in diet, and a strict dietetic regimen is, therefore, a chief factor in the treatment, preventive and curative. There is such a consensus of opinion as to the advisability of early removal of the growth, that a discussion of the subject would be useless. So, then, in the first place, let us remove the tumor, and thoroughly. But after we have

done so we must then adopt the means stated above to prevent a second development. We must change the diathesis; we must seek to modify the patient's constitution so that it will be no longer prone to reproduce the disease; and then only may the surgeon be satisfied that he has done his duty."

He further says: "For the proper treatment of cancer, and to prevent its occurrence and recurrence, it is absolutely necessary to maintain a perfect vegetarian diet, which includes even the exclusion of eggs and milk, with food."

A Text-Book of the Practice of Medicine.—For students and practitioners. By Hobart Amory Hare, B. Sc., M. D., Professor of Therapeutics, Materia Medica and Diagnosis in the Jefferson Medical College, Philadelphia; Physician to the Jefferson Medical College Hospital; one time Clinical Professor of Diseases of Children in the University of Pennsylvania. Third edition, revised and enlarged. Imperial octavo, 969 pages, with 142 engravings and 16 plates in colors and monochrome. Cloth, \$6.00 net. Lea & Febiger, publishers, Philadelphia and New York, 1915.

Dr. Hare's insight into the needs and problems of the man in general practice, and his ability to supply the exact information required, in the form in which it is available for instant use, are elements which give this work a distinctive value.

Pathology, symptomatology and diagnosis are given full consideration, but emphasis is laid on treatment as the final aim in practice, and the therapeutic recommendations are accordingly set forth in detail, with indications for their employment. A comprehensive knowledge of the latest advances of present-day medicine is balanced by a wise conservatism.

The revision, which has been most thoroughly carried out, amounts practically to a rewriting of the book. New sections have been added to include the recent advances in every department of medical science, and each page has been subjected to a most careful scrutiny. The physician who has enjoyed the advantage of using Hare's Practice as a work for daily consultation will appreciate this new edition. To those who have not used it, the book can be recommended as a work of the highest didactic quality, of practical directness, and sustained interest.

The plan of the work is such as to emphasize the usefulness of the material presented. In the consideration of each disease a definition and general discussion is followed by a statement of its distribution and history:

etiology: prevention and frequency; pathology and symptoms: complications and sequelæ. Diagnosis and prognosis are taken up in order and in full detail, and an exhaustive discussion of treatment follows. A splendid index of 64 pages renders every item of essential information readily accessible.

New and Nonofficial Remedies, 1915.—Containing descriptions of the articles which have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association prior to January 1, 1915. Paper-bound copies of this book will be sent by the American Medical Association, 535 North Dearborn Street, Chicago, postpaid, for 50 cents, and cloth-bound copies for one dollar.

The present edition of *New and Nonofficial Remedies* marks the tenth year of the existence of the Council on Pharmacy and Chemistry. Since 1907, when it was published as a modest pamphlet, *New and Nonofficial Remedies* had grown to a volume of 426 pages. It may be fairly said to contain descriptions of all the worth-while proprietary and nonofficial remedies now on the market in the United States. Further, it is the only book or publication which contains comprehensive and trustworthy discussions of the composition, source, properties and dosages of proprietary remedies. As every physician should be informed about new remedies, even if he has little use for them, a copy of the book should be in the possession of all. It is not too much to say that a physician who is not familiar with *New and Nonofficial Remedies* is not doing his full duty, neither to himself and his profession, nor to his patients.

In addition to the individual descriptions of drugs and preparations, the book contains critical discussions of the various classes of preparations. These general discussions compare the value of the newer remedies with the established drugs which they are designed to displace. Thus the book affords an authoritative review of therapeutic progress.

The book contains, as a supplement, a list of references to discussions of articles not admitted to *New and Nonofficial Remedies* which have appeared in *The Journal of the American Medical Association*, in *The Annual Reports of the Council on Pharmacy and Chemistry*, and in *The Reports of the A. M. A. Chemical Laboratory*. This list of references enables physicians readily to obtain information in regard to the many nostrums which are exploited to the medical profession.

A Text-Book of Diseases of the Nose and Throat.—By D. Braden Kyle, A. M., M. D., Professor of Laryngology and Rhinology, Jefferson Medical College, Philadelphia. Fifth edition, thoroughly revised and enlarged. Octavo of 856 pages, with 272 illustrations, 27 of them in colors. W. B. Saunders Company, Philadelphia, 1914. Cloth, \$4.50 net.

The author of this book presents the subject of Diseases of the Nose and Throat in as concise a manner as is compatible with clearness. There are many things in it that might seem superfluous to the specialist, since the work has been prepared for the student and general practitioner as well.

This edition has been revised and includes many new articles. A number of new illustrations have been added and many of the old ones have been replaced by new illustrations.

Cystoscopy and Urethroscopy.—For general practitioners. By Bransford Lewis, B. S., M. D., F. A. C. S., St. Louis, and Ernest G. Mark, A. B., M. D., F. A. C. S., Kansas City. With a chapter on Uretero-Pyelography by William F. Braasch, M. D., Rochester, Minn. With 113 illustrations, 23 of which are printed in colors. Octavo. Cloth, \$4.50 postpaid. P. Blakiston's Son & Co., publishers, 1012 Walnut Street, Philadelphia.

The authors of this book give the technic of cystoscopy and urethroscopy so graphically, by both text and illustration, that it should prove of unusual value to the beginner in his endeavors in this line, as well as of advantage to the experienced who may be interested in studying the methods of others besides his own. The book is divided into two parts. Seven chapters on cystoscopy and five on urethroscopy.

A Practical Text-Book of Infection, Immunity and Specific Therapy, With Special Reference to Immunologic Technic.—By John A. Kolmer, M. D., Dr. P. H., Instructor of Experimental Pathology, University of Pennsylvania, with an introduction by Allen J. Smith, M. D., Professor of Pathology, University of Pennsylvania. Octavo of 899 pages with 143 original illustrations, 43 in colors. W. B. Saunders Company, Philadelphia, 1915. Cloth, \$6.00 net; half morocco, \$7.50 net.

This book describes in great detail the technic of the various tests and reactions pertaining to infective immunity and specific therapy, thus tending the better to secure accuracy, simplicity and definiteness, and to open an opening wedge to those about to enter this specific field.

The author states that the purpose of this book is a threefold one, namely: (1) To give to practitioners and students of medicine a connected and concise account of our pres-

ent knowledge regarding the manner in which the body may become infected, and the method, in turn, by which the organism serves to protect itself against infection, or strives to overcome the infection if it should occur, and also to present a practical application of this knowledge to the diagnosis, prevention and treatment of disease. (2) To give physicians engaged in laboratory work and special workers in this field a book to serve as a guide to the various immunologic methods. (3) To outline a laboratory course in experimental infection and immunity for students of medicine and those especially interested in these branches.

FOR SALE—One Wantz X-ray Coil, manufactured by the Victor Electric Company, one Western Coil, 16-inch, manufactured by the Schiedel-Western Electric Company. Both machines suitable for therapeutic and heavy radiographic work. In perfect condition, and at a reasonable price. Address, Dr. A. M. Zell, Bankers Trust Building, Little Rock, Ark. (Advt.)

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THE RELATIONSHIP BETWEEN VENEREAL DISEASES AND PELVIC SURGERY.*

By Wm. A. Snodgrass, M. D.
Little Rock.

It may seem strange to many of you that there should be any relation between anything connected with Venus, the Roman goddess of love and beauty, which symbolizes all that should enter into the bonding of the sexes and the propagation of the species, and surgery, the art of dividing or cutting apart.

These two subjects differ so much in age and function, it does seem strange that anyone would presume to find a relationship between them. The history of venereal diseases can be traced back long before the time of the Christian Era.

Gonorrhea and syphilis are the diseases usually associated with Venus, "The Beautiful Roman Goddess of Love." I will confine my remarks to gonorrhea only, as syphilis plays such a small part in the production of any pelvic disease that could be related to, or associated with pelvic surgery.

Gonorrhea is a historical disease and a fairly correct clinical history of the disease is given in the Holy Bible, in the writings of Moses.

In the fifteenth chapter of Leviticus, Moses, in the year 1491 B. C., not only warned the children of Israel of the dangers of gonorrhea, but laid down definite sanitary and police regulations for its prevention—many of which rules might be adopted with advantage at the present time.

In Deuteronomy, chapter twenty-four, verse one, these words are found: "When a man hath taken a wife, and married her,

and it come to pass that she find no favor in his eyes, because he hath found some uncleanness in her: Then let him write her a bill of divorcement, and give it in her hand, and send her out of his house."

The historian, Josephus, relates how the Jews on their way to the land of Canaan contracted venereal diseases.

In the Jerusalem Talmud numerous references are made to gonorrhea; in the Babylonian Talmud venereal diseases are frequently mentioned. After a careful study of both Talmuds, there can be little doubt in the reader's mind that gonorrhea played an important part in the cause of diseases of women in ancient times.

In Numbers, fifth chapter and second verse, we find the Israelites instructed to put out of the camp every one who hath an issue.

It is interesting to note that most of the early writers gave but little attention to gonorrhea in the female and that intra-pelvic complications of the disease were not recognized.

Beckett tells us of an ordinance formulated by the Bishop of Winchester, that no woman afflicted with the perilous infirmity of burning should be harbored in any of the eighteen houses of prostitution situated in Southwork.

A similar ordinance was passed on August the eighth, 1343, by Joanna the First, "Queen of Sicilies," that all women in the houses of prostitution in her domain should be examined by the superintendent and surgeon each Saturday, and if found to be afflicted be expelled from the houses.

Not until the end of the Fourteenth Century did the contagiousness of venereal diseases and the differential diagnosis between gonorrhea and syphilis, and the mode of transmission become well understood. At this time we find various ordinances formulated for their control; some of them were as good or better than those we have at the present time.

*Read before the First District Medical Society, held in Jonesboro, April 27, 1915.

With all this knowledge of the disease, its true cause was not known until the discovery of the infecting germ, "the gonococcus," by Neisser, a German microscopist, in the year 1876. This discovery was still in doubt in the minds of medical writers, when, I myself was a student of medicine in 1890.

NOTE.—An extraet from a standard textbook on Diseases of Women, by A. J. C. Skeen, of New York, professor of diseases of women in the Long Island Medical College, Brooklyn, New York, shows he was in doubt in regard to the gonococcus of Neisser, being the sole cause of gonorrhea; also we find the author, in a treatise on the Diseases of Female Pelvic Organs, published in the American Text-Book of Surgery in 1892, expressing doubt as to the specific cause and mode of contagion of the disease.

Gynecology, that branch of medicine and surgery which deals with diseases pertaining to the female generative organs, is a new department in the healing art. Pelvic Surgery, less than fifty years old, is a new department in surgery.

I feel that I can speak authoritatively on this subject, *The Relation of Venereal Diseases to Pelvic Surgery*, having taught diseases of women for a number of years in the Medical Department of the University of Arkansas and conducted a large outdoor clinic, where hundreds of sufferers from venereal diseases appeared before me annually for examination and treatment.

Venereal diseases make no discrimination between persons. It attacks all classes in all stations of life, from the new born infant to the aged and decrepit. No person is exempt, and thus far no law of immunity has been established.

The organism which produces the disease is transmitted by the secretions from infected areas of persons, who have the disease. The infection may be transmitted to uninfected persons by the use of cloths, towels, syringe tips or unsterilized instruments. Therefore, all physicians who have the interest of their patients at heart, should sterilize their instruments before using them for examining or treating each patient.

The results of gonorrhea, this contagious, infectious venereal disease, reaps a terrible toll from the human family every year in death to its vietims, not to be enumerated.

The great sacrifice of the important organs of reproduction to surgery, in an effort to save human life and make the future of

the unfortunate subject of venereal disease more comfortable.

Venereal disease, gonorrheal infection of the womb, is responsible for 50 per cent of the cases of menorrhagia, excessive menstrual flow caused by inflammation of the lining of the organ. Dysmenorrhea, or painful menstruation, is not infrequently caused by gonorrheal infection, and 60 per cent of the cases of endometritis are due to gonorrheal infection.

DISEASES OF THE FALLOPIAN TUBES.

Eighty per cent of the cases of sal-pingitis are due to gonorrheal infection; 90 per cent of all cases of pyosalpinx, pus in the tubes, are due to gonorrheal infection; 50 per cent of the kinked fallopian tubes with a narrowed lumen, which may result in that awful accident, extra-uterine pregnancy, ectopic gestation, which is so fatal, unless a prompt and skillful surgical operation is done, can be traced to venereal disease. The organs left following this diseased condition are wholly unable to perform the function for which they were intended.

Pelvic cellulitis, pelvic peritonitis, and dif-fused peritonitis are frequently caused by venereal diseases.

Ninety per cent of the cases of oophoritis are caused by an extension of gonorrheal infection from infected fallopian tubes. This disease is found in three forms, viz: atrophic oophoritis, the small contracted ovary; second, hyperplastic oophoritis, in which is found the large swollen tender ovary; third, we have the cystic oophoritis, in which we find, first, follicular cyst, ultimately resulting in a cystic degeneration of the ovary, and parovian cyst which become so large they must be removed by abdominal section.

Gonorrhea is by far the most comomn cause of sterility in both sexes.

One child sterility, as our German friends say (*Ein Chillins Sterillits*), the condition is due to a latent gonorrheal infection which lights up anew in the womb as soon as the baby is born, and the result is complete sterility from inflammatory disease of the tubes or ovaries, or both.

Eighty per cent of all deaths from pelvic diseases are directly due to gonorrheal infection.

The gonococcus, the specific micro-organism which causes this disease (gonorrhea), may live indefinitely in the deep epithelial tissue cells which form the lining of the pelvic

organs, the lining of the glands which are found in the vagina, urethra and urinary bladder.

The acute symptoms of this disease usually subsides in four to six weeks, and after that it may lie dormant for months, or even years, to become active again just as soon as new living tissue cells are exposed, or a new victim comes in contact with the focus of dormant micro-organisms.

It has been said "that when you once become a gonorrheic, you are always a gonorrheic."

Gonorrhea is one of the most prolific causes of kidney diseases, nephritis, nephrolithiasis and pyonephrosis. These conditions are sequels of gonorrhea.

In reviewing pelvic surgery, which I have done during the past twenty years, I am fully convinced that 80 per cent of the operations have been done for conditions, either directly or indirectly, due to venereal disease. The spread and propagation of this disease is not all due to the malicious practice of vice; but in the majority of cases the transmission is due to ignorance and innocence. I have so many, many times seen the young bride afflicted with venereal disease, contracted from her ignorant, fond and loving husband, who, when a young man had suffered from this affliction, thinking himself cured of the apparently innocent venereal trouble, entered into a marriage contract with the one most sacred to him, to find out in a few days after the wedding that neither of them are well, and in a few weeks some honest, sincere surgeon is called upon and in an effort to save a human life, finds it necessary to remove one or both of the fallopian tubes and perhaps the ovaries, leaving the poor bride a sterile, sexual cripple for the remainder of her life.

The scene is frequently shifted a little farther. A child is born to the happy couple. The happy young mother about the third day, finds that her baby has sore eyes, and she herself does not feel well and has fever, and suffers pain in her pelvic organs. The old gonorrheal infection has found fresh soil for its development, new territory has been opened up for its invasion, and it sweeps on in its ravages and destruction until the fallopian tubes have become sacks of pus, the ligaments of the pelvis are inflamed and adhered together and to the peritoneal lining of the pelvis. The young mother is said to have "septic fever." If the young mother does

not die during the acute attack, and partially recovers, a few months later, a surgeon is approached, not by a rosy-cheeked young mother, the noblest of God's creation, but by a pinched face, prematurely old woman, who relates the story of her marriage, the birth of her child (who in 50 per cent of the cases die before it is three months old). She tells of her condition immediately after the baby came and a long story of her continued ill health. A few words of inquiry, a microscopic examination reveals the secret and tells the cause of all this misery and suffering, which has converted this noble goddess of love and beauty into a sterile, sexual cripple for life. (One child sterility.) In order to make life tolerable, an operation is done. The painful ovaries are resected or removed, the pelvis adhesions are broken up, and the infected tubes are removed, in order to make the poor victim's life bearable so far as pain is concerned. The craft of love and affection is wrecked on its first voyage. Husband and wife soon drift apart and their lives are made miserable. This picture is not overdrawn—every physician has observed such cases.

The question arises in the mind of everyone, "What shall we do?" Surgery does what it can, but the relation of pelvic surgery to venereal disease has fallen far short of giving satisfactory results.

I sincerely believe that this condition of affairs could be greatly improved by abolishing completely and absolutely the present double standard of morals society now recognizes for our boys and girls. They should be educated in regard to the contagiousness and the appalling results of these diseases. Certificates of health given before the marriage contract is entered into would do a great deal toward creating a public sentiment against venereal diseases.

Sociologists in all ages have made efforts to legislate against venereal disease: but I believe the remedy is to enlighten the public mind regarding the ravages of venereal disease, will do more for the human family than all the laws for inspection and segregation of such diseases can ever do.

The relation of venereal and pelvic surgery should be made plain to everyone. All should know the prevention of such diseases towers far above the art of surgery. Pelvic surgery is a young department in the science of surgery. This department has only been practiced for a little more than forty years.

It has done much to stop the ravages of venereal disease and to relieve its wretched victims of pain and suffering.

Since the discovery of Pasteur and the laws laid down by Lister, the father of antiseptic surgery, fifty years ago, pelvic and abdominal surgery have made more rapid advances than any other branches of the healing art. This young department of surgery has completely overshadowed the older methods of treating intra-pelvic venereal diseases. We have seemingly forgotten that the prevention of venereal disease is more important than all the methods of treatment. The relationship between venereal disease and pelvic surgery is so closely allied that they never can be separated. It will always be necessary to do pelvic surgery for the relief of suffering, the result of venereal disease. But we must recognize the fact that these diseases are preventable. If the public were informed as they should be, and knew that 80 per cent of pelvic surgery was done for the relief of conditions due to gonorrhea, a preventable disease, I believe the number of operations for the relief of venereal diseases could be reduced to 10 per cent in a few years.

In studying the history of venereal diseases, we find that laws and ordinances have been made for its control for more than three thousand years, and yet we are still sacrificing thousands of lives annually to this preventable disease, not to mention the sacrifice of valuable organs to surgery.

Public sentiment is the strongest influence in the world. If you can arouse a strong public sentiment in a community against anything, it must and will go. I believe our strongest weapon against venereal disease is education. Teach its cause and the mode of transmission and the results of its presence. Such knowledge would soon abolish the double standard of morals for our boys and girls, which society tolerates today. Refuse employment to a young man in your store, your bank, factory, or on your farm, if he is thought to be immoral, just as you would a young woman. Refuse him admission to your home; such treatment would not be unjust to the young man, and it would be a great blessing to future generations.

Surgeons are creatures of necessity. If there were no patients, there would be no surgeons. But as there are patients and we surgeons have learned by experience, and demonstrated that the art of surgery is life saving, and that pelvic surgery is one of the

most important branches of surgery, and that 80 per cent of the intra-pelvic operations are done for the relief of conditions caused by venereal diseases.

We know our art, the art of pelvic surgery, would be lost if gonorrhea was banished from the earth. But so long as it is not banished, the relationship between venereal diseases and pelvic surgery will be bound, one to the other, as were the Siamese twins.

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TYPHUS FEVER—ITS ETIOLOGY AND THE METHODS OF ITS PREVENTION.*

By John F. Anderson,
Director Hygienic Laboratory,
United States Public Health Service.

The subject that I have chosen for my address is at once an old one and a new one. It is old because the disease has been known for a great many years, even back to the time of the great plague in London, many deaths during that great epidemic having been undoubtedly due to typhus fever. It is new because of certain recent additions to our knowledge of the etiology, method of transmission, and distribution of the disease.

Typhus fever has been confused, especially, with two other diseases, namely, relapsing fever and typhoid fever. The distinction was first clearly drawn clinically between relapsing fever and typhoid in Ireland about 1826, and their nonidentity was conclusively settled by the discovery of the spirillum of relapsing fever in 1868. Gerhard, in 1837, was the first to set forth clearly the clinical and pathological differences between typhoid and typhus fevers, and the discovery of the typhoid bacillus by Eberth in 1880 definitely established this distinction.

The disease has been the subject of a large amount of painstaking and careful work without any very great advance having been made in our knowledge of it until the latter

*Abstract of a lecture delivered before the Minnesota Pathological Society, March 30, 1915, and before the Army Medical School, April 23, 1915.—Public Health Reports, April 30, 1915.

part of 1909, when Nicolle infected a chimpanzee with blood drawn from a human case of typhus fever. Some time later, working with Comte and Conseil, he reported the successful transmission of typhus fever from one monkey to another by the bite of a body louse.

Just about that time the studies of Goldberger and myself were begun in Mexico City and we were not aware of the work of Nicolle and his co-workers until after the publication of our first two notes. We found, contrary to the first reported experiments of Nicolle, that the lower monkeys, such as the rhesus and capuehin, could be infected by inoculation of blood drawn directly from human cases of the disease, and without the passage of the virus through one of the higher apes, such as the chimpanzee, as was claimed to be necessary by Nicolle. We found that one attack of Mexican typhus in the monkey conveyed a definite immunity to subsequent attacks, and, in our opinion, the epidemiological evidence pointed unmistakably to the correctness of Nicolle's observations as to the part played by the body louse in the transmission of the disease.

Just at this point our work in Mexico was interrupted by the illness of Dr. Goldberger with typhus, and after his recovery his condition was such as to necessitate our return to the United States. For this reason our work on typhus fever was discontinued, as it was not believed that cases of the disease, except at rare intervals, occurred in this country.

About this time, however, Dr. Nathan E. Brill published a paper giving the results of a study of 221 cases of an acute infectious disease of unknown origin observed by him in the wards of Mount Sinai Hospital during several previous years. He had previously reported 17 cases of the same disease. The important features of the disease, as observed by Dr. Brill, are so well summarized in his definition that I shall quote it:

"An acute infectious disease of unknown origin and unknown pathology, characterized by a short incubation period (four to five days), a period of continuous fever, accompanied by intense headache, apathy, and prostration, a profuse and extensive erythematous maculo-papular eruption, all of about two weeks' duration, whereupon the fever abruptly ceases, either by crisis within a few hours or by rapid lysis within three days, when all symptoms disappear."

In a third paper Brill reported on a study of 34 additional cases observed since the 221 reported in his second paper. This paper was of especial interest to us, as it gave the results of the inoculation of monkeys with material obtained during life and at autopsy from cases of the disease and it gave the postmortem findings in the fatal case. When Brill's second paper appeared in April, 1910, we had recently returned from the City of Mexico where we had seen many cases of typhus and we were struck by the very remarkable resemblance between the disease described by Brill and typhus fever as observed by us in Mexico and as observed by one of us in certain places abroad. For this reason we endeavored to obtain access to cases of Brill's disease for purposes of study in order that we might determine if possible their relationship to typhus. A case was finally seen in the wards of Mount Sinai Hospital and blood was drawn from the arm vein of this patient and used for the inoculation of monkeys. One of these animals, after an incubation period of ten days, developed a fever which reached its maximum six days later and fell by rapid crisis 14 days after the rise began.

Blood was drawn from this animal and used for the inoculation of other animals which, after an incubation period of nine days, developed a fever which, in its rise, duration, and termination, was similar in all respects to that in the monkey first inoculated. Since then this strain of typhus fever has been passed through 76 monkey generations and over 150 generations in the guinea pig.

After intraperitoneal or intravenous inoculation of infective blood into a monkey there follows an incubation period of 5 to 14 days. At the end of this time there is usually a rapid rise of the animal's temperature, which not infrequently reaches a maximum in 36 to 48 hours of 41 to 41.5°C. The temperature remains high until toward the end of the febrile period, when it may show a gradual decline; but it usually declines by crisis or rapid lysis, frequently to subnormal.

Convalescence is usually rapid. We have never noticed the presence of an eruption, although careful search has been made for the same. In other words, the fever is the only definite index of a reaction. Although apparently a mild disease in the monkey, we have had four deaths in a total of 105 cases of typhus in that animal.

After we had established the susceptibility of the rhesus monkey to infection by inocu-

lation with blood from a case of Brill's disease, it became important to determine the relationship of Brill's symptom-complex to typhus fever, and for that purpose we tested the susceptibility of animals that had recovered from Brill's disease to Mexican typhus, as well as the converse of this. It was found that an attack of Brill's disease in the monkey conferred a definite immunity to infection with Mexican typhus, and that an attack of Mexican typhus in the monkey conferred a definite immunity to an attack of Brill's disease. In other words, Brill's disease, so called, and typhus fever are identical.

The results of these cross-immunity tests having plainly justified the conclusion that the disease described by Brill was identical with the typhus fever of Mexico, and inasmuch as the New York strain of typhus was undoubtedly of European origin, the further conclusion was made that the typhus fever of Europe and the typhus fever of Mexico are identical.

During the progress of the work necessary for the demonstration of the identity of the two diseases, a number of related problems were given attention. Among the first of these was work upon the method of transmission. It was found that the so-called Brill's disease, as well as the typhus fever of Mexico, could be transmitted to the monkey by the bite of body lice which had previously been allowed to feed either on human cases of the disease or on monkeys sick with typhus fever.

Attempts have been made by various workers, including ourselves, to transmit the disease from monkey to monkey or from human beings to monkeys by the bite of insects other than the body louse. The experiments with fleas and bedbugs have been frankly negative, and the experiments with the head louse by Goldberger and Anderson, while highly suggestive, were not conclusive.

Since the body louse has been shown to be the means by which typhus fever is transmitted, it has been possible to put into effect practical methods of preventing typhus which, when intelligently applied, have worked remarkable results. Thus the disease, which has always been endemic in Tunis and which each year has carried off a large number of victims among the native population, has now almost disappeared. According to Nicolle, in 1909 there occurred in Tunis 838 cases of typhus fever, but in 1912, after the efforts to control the disease in the light of recent researches had been put into effect, there occurred only

22 cases. The only prophylactic measure resorted to has been the systematic destruction of lice found on person (and their clothing) in the vicinity of patients suffering from typhus.

Typhus fever has always been one of the great plagues of military camps, particularly in the temperate zone, and it is more than probable that, unless the newer methods are adopted for the control of the disease in the large armies now engaged in warfare in Europe, the disease may become a scourge among the troops. This is particularly true, as typhus fever is known to be endemic in certain German, Russian and Austrian Provinces and in eastern Europe.

The experimental work of various investigators of typhus fever has shown conclusively that the virus of typhus is present in the blood, at least throughout the febrile period, and we have found that the blood of the monkey may still be virulent from 24 to 32 hours after the return of the temperature to normal, but that the blood of the animals in the instances tested by us was not virulent in the prefebrile stage. The infective agent is present in the different elements of the blood; that is to say, the blood serum collected by defibrination and centrifugation or by clotting, the washed blood corpuscles, and the leucocyte layer all contain the infective agent in about equal proportions.

The virus in the blood is not very highly resistant. It has been found that drying for 24 hours and heating at 55° C. for five minutes deprive it of infectivity. It may resist freezing as long as eight days.

We made a number of experiments to determine the filterability of the infective agent as it exists in the blood serum and we believe that the virus of typhus fever is not filterable and that therefore the infective agent is of a size sufficiently large to be seen with the ordinary powers of the microscope.

I have referred to the fact that the guinea pig is susceptible to infection with typhus fever. This is of importance because I have suggested that the inoculation of this animal with blood drawn from cases of fever giving a negative Widal and a negative blood culture for the typhoid bacillus will be of value in the diagnosis of suspected cases of typhus fever.

Now, just a few words in regard to the clinical differences between typhus and typhoid. This may be of special significance

to the clinician. Both the older and the more recent history of the disease testify to its great clinical likeness to typhoid.

As a rule, the onset of typhus is more abrupt than that of typhoid fever. It is common in typhus to find a history of well-being on going to bed and of rising in the morning with a severe headache and malaise, which, within a few hours, compel a return to bed. Chilliness or a distinct chill are common at the onset of typhus, very much more so than in typhoid. Headache with or without chilliness and with or without malaise almost invariably marks the invasion of typhus. Indeed, the patient may complain of little else, either at the beginning or throughout the course of the disease.

In marked contrast to typhoid, the face is flushed and the conjunctiva are congested in the first few days as the result of a capillary congestion not unlike that seen at the onset of dengue or of yellow fever.

The temperature rises rapidly, very abruptly indeed, and with it the pulse rate. In typhoid the evolution of the fever takes longer as a general thing, and the rise in the pulse rate is sluggish and not in proportion to the fever. The fever does not, as a general thing, range at high levels. In this, as well as in some features of its onset, typhus strikingly resembles yellow fever. The duration of the fever is about twice that of yellow fever and about half that of typhoid, namely, about fourteen to sixteen days. The defervescence also suggests yellow fever, except that it is not infrequently critical in typhus. Some of the older descriptions of typhus give the impression that a critical defervescence is invariable; this has not been our experience as we have seen typhus in Mexico.

An important distinction relates to the eruption. The eruption of typhus appears within three to five days after the onset, therefore earlier than is the rule in typhoid; it is general, sparing only palms and soles; its evolution is rapid, being fully out within twenty-four to thirty-six hours, and is permanent, in marked contrast to the typhoid eruption which appears in successive crops. It is important also to recall that the macules constituting the typhus eruption are polymorphic. They have not the regularity of outline or the uniformity of size and appearance of the typhoid rose-spots. Moreover, while most or all of the lesions may fade markedly on pressure in the early stages, some fade little if at all, and the proportion

of these may and usually does rapidly increase, the eruption becoming petechial as it becomes older.

Recently, Plotz, working at Mount Sinai Hospital, has reported the cultivation of an organism from cases of typhus, using special anaerobic methods. Should this work be confirmed, it is possible that methods may be developed, using the organism, for the serum treatment of cases and perhaps a vaccine may be devised that will be of value for prophylactic purposes.

Brill, in his three papers, has reported the observation of 254 cases of so-called Brill's disease, which we now know to be typhus fever, in the wards of Mount Sinai Hospital between the years of 1896 and 1910. Eighteen cases were reported by Louria at the Jewish Hospital, Brooklyn, during the summer and fall of 1910. Cases have been reported from other hospitals in New York City, Chicago, Milwaukee, Washington, Atlanta, Providence, Boston, and points in Virginia and Indiana.

Roger Lee, in a study of the case records of the Massachusetts General Hospital for the ten years from 1902 to 1912, concluded that typhus fever in mild form had been present in Boston and vicinity during that time. He found, in his study of the records of 1,404 cases of continued fever of a greater duration than seven days, twenty-eight cases which corresponded extremely closely with Brill's description of typhus fever. This gave a ratio of one case of typhus to forty-seven cases of typhoid.

There is reason to believe that this same ratio would hold, not only for cases of typhoid fever in Boston, but for typhoid fever in other large cities of the United States. If we assume that the ratio of one case of typhus to forty-seven cases of typhoid, as found by Roger Lee in the Massachusetts General Hospital, holds for certain other large cities, we may estimate for 1912, based upon the reported cases of typhoid fever, that there were present in New York City for that year seventy-two cases of typhus, in Baltimore twenty-two, Boston ten, Chicago twenty-two, and Philadelphia thirty-four.

That this is not altogether an unwarranted assumption is evident from the fact that, according to the reports from two hospitals in New York City, thirty-six cases of typhus were treated at Mount Sinai Hospital and nineteen cases at the Jewish Hospital in the

year 1912. The ratio of cases of typhus to typhoid in the Jewish Hospital for that year was about one to two and three-tenths instead of the ratio of one to forty-seven, as found by Lee in Boston.

From this it is evident that typhus fever, instead of having disappeared from the United States, is present and has been present for years, at least in the large cities. This hardly need occasion any surprise when we recall how frequently the presence of certain diseases may be overlooked, as is shown by the history of pellagra and hookworm disease in this country.

There is no experimental evidence to support the view that typhus is acquired in any manner other than by the bite of lice, which have previously fed on a person sick with the disease. This being so, in our prophylaxis it is necessary only that we keep this important fact clearly in mind; and by so doing we may readily deduce the fundamental procedures on which prevention may be based.

In my opinion it may safely be assumed that association with a case of typhus, in the absence of the transmitting insect (the louse), is no more dangerous than association with a case of yellow fever or malaria in the absence of the proper species of mosquito.

All our efforts at prevention, therefore, are centered upon the louse, and these efforts may be broadly grouped under the following headings:

1. Measures for the reduction of lice infestation among the population in general.
2. The destruction of all lice and their eggs found on the bodies, clothing, bedding, and surroundings of all cases of typhus, typhus suspects, and contacts.
3. The adoption of measures, by persons in the vicinity of cases of typhus, to reduce or prevent the possibility of their being bitten by lice.
4. Inoculation with the mild type of the disease (Brill's disease) by persons contemplating entering localities where the disease is prevalent. Should Plotz's work be confirmed, the use of a vaccine prepared from the typhus-fever germ may be substituted for this.

The measures to be adopted under the first heading are, to a considerable extent, educational, except in institutions and places over which the sanitary authorities have supervision, such as bathhouses, lodging houses, and

other places where numbers of persons may gather.

In surroundings where lice may be found, systematic efforts should be made for the destruction of lice and their eggs. These efforts consist in the use of insecticides, both chemical and physical, bearing in mind the important point that the louse requires frequent feeds of blood and therefore is most apt to be found on recently used clothing or bedding. It is not difficult to kill when exposed to insecticides, while its eggs are much more resistant to chemical agents, but are destroyed by heat or steam.

Under the second heading comes, first of all, the institution of measures requiring the prompt report to the sanitary authorities of all cases or suspected cases of typhus fever. Such cases should be promptly seen and the inspector should be satisfied that the patient's surroundings are free from lice, in which case the patient may, without danger to the community, be treated at home. If, however, such is not the case, or there is doubt, the patient should at once be removed to a hospital and the place from which he is removed be treated to destroy all lice and even their eggs. For the treatment of materials, such as clothing and bedding, the use of steam is the method of choice. All suspects and contacts should be bathed, the lice and their eggs in the hair being destroyed, and then be given a change of clothing, and their old clothes disinfected. They should be kept under observation for at least twelve days.

The measures to be adopted under the third heading are such as should prevent or minimize the possibility of persons near cases of typhus being bitten by lice. It should be borne in mind that the louse has not the radius of action of the mosquito or even of the flea; and therefore the striking distance of typhus is shorter than that of yellow fever, malaria or plague. For the transference of lice from one individual to another, rather intimate association with the lice-infected person or his surroundings is necessary; and by reason of the fact that the louse requires frequent feedings to maintain life, this means, for practical purposes, surroundings recently occupied by persons, and possibly by animals.

There is but little to say in regard to the procedures suggested under the fourth heading. The case mortality of the mild form of typhus (Brill's disease), so widespread in the

United States, is very low, probably not over one per one hundred attacked, while the case mortality in Serbia, for example, is possibly twenty or perhaps more per one hundred attacked. For this reason alone (and there are other reasons) the advisability of inoculation with the mild form of typhus would certainly seem worthy of serious consideration for those going to places where typhus is prevailing in a virulent form.

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THE NEW SCIENCE OF KEEPING THE WELL—WELL.*

By Dr. Oscar Dowling,
President Louisiana State Board of Health,
President Southern Medical Association,
Shreveport, La.

Mr. President, Ladies and Gentlemen:

In the cause of brevity you will pardon a plunge into the argument I have in mind to present.

At present there are more than two hundred thousand medical men engaged in patching up, cutting and stitching, in rebuilding and revitalizing human bodies. They are doing their best to affect cures. About two hundred physicians are making an effort to keep well the twenty-six twenty-sevenths who are not sick. In the annals of history the latter is a new vocation. It is about two years old.

There are approximately in the states eighty-nine million well people and three million sick, yet two hundred doctors fend off ills from the one, and two hundred thousand take care of the other. When I was a high school student we laughed at the idea of the Chinaman paying the doctor to keep him well; now this is accepted as economic and intelligent.

Our system of letting the enemy enter and then fighting to expel is deeply rooted. It is an inheritance from the day that knew not prevention. Up to 1619 the mile-stones in medical progress were few, but from the time Harvey discovered the circulation of blood, advancement was rapid. Discoveries came as the centuries passed; in later times with almost every decade.

The nineteenth century was fruitful in results which have wrought a change in methods and, more important, in the attitude of men toward the healing art.

Every era may be called one of transition, but in medicine the present is pre-eminently so.

Considering first the physician, it is apparent his standards are changing. The Compendium of "Principles" adopted in 1903 by the American Medical Association is a con-

*Read at the Thirty-ninth Annual Session of the Arkansas Medical Society, held in Little Rock, May 3-6, 1915.

crete example. The original code of medical ethics of this association may be said to date back to 1803 to a set of rules written by Dr. Thomas Percival for his son, who was entering the practice of medicine. This "code" was adopted by the association in 1847 and, though ridiculed by many physicians, it was abolished only a short time ago.

The ethics of 1803 demand secrecy as to malady and treatment; protection of a brother physician at all hazards; and that the doctor surround himself with an atmosphere of dignity, if not mystery. He might not tell an untruth for his own good, but he might deceive the patient with impunity—for the patient's own good. No patent could be obtained for any new device, or discovery, but the rules governing consultation were made, it would seem, entirely in the doctor's interest. Science and a changing social order made rules more rational a necessity.

It goes without saying that between the patient and physician there will always be a confidential relationship; that in many instances the physician alone is the judge of what shall be disclosed; in various states the law defines the obligation of a doctor as a witness; in others, with certain diseases, it leaves him no discretion. The doctor who gossips is unworthy of the name of physician; equally so is the one, who by silence refuses to ward off dire affliction from the innocent.

In the relation to illness, *per se*, a better knowledge of causes has made the individual more frankly inquisitive and the physician who now refuses to answer sensible, pertinent questions leaves himself open to the charge of ignorance. When the sick were all treated with "gun-shot" doses, bread pills, or by application of leeches, to look wise when the sick man lived, or when he died, would pass. But in the day of serum-therapy, bacteriology and antiseptics, silence, secrecy and ignorance do not inspire confidence or reverence.

Every patient is frankly expectant that the doctor *knows*; if he doesn't he is in honor bound to say so. This makes "consultations" less a matter of etiquette and more a question of the sick man's welfare. If the consulting physician thinks the "regular" not correct in the diagnosis, he must consider not the confrere so much as the patient. He need not cry from the housetops the mistake of his brother physician, but it is the spirit of the new code that he must meet his obligation to the one most interested—the patient.

Truth has made the doctor free. He now knows with certainty the manifestations of certain diseases; he may speak frankly and with certitude. In mediæval times and much nearer our own day he did not know and was a slave to his own ignorance and uncertainty, hence his habit of secrecy.

So long as honorable men make up the great body of the profession, there is one principle of the old code, likewise the new, which will stand—selfish, personal aggrandizement is unethical. Scientific achievement and arrogance are not concomitants; they do not exist together. The man who knows is humble; he has visions of a great unexplored beyond; he is a student and a student's essential characteristic is humility.

The revision of the "ethics" and the growing popularity of a policy of frankness indicate that physicians would eradicate all professional follies and vices. But in an age like this, commercialized and individualistic, it is to be expected that some men in all fields of endeavor will succumb to the temptations which are manifold. In almost every state in the union there are men from all professions, once thought unimpeachable, who justly wear prison stripes. In medical practice there are temptations greater than those which arise in commercial enterprises or political activities. The successful physician may be tempted to barter his skill for social prestige; to sell his independence for political honors. The doctor burdened with financial care, or the one struggling for a foothold, can find opportunity to stoop to quackery debasing, if not criminal. The man without honor may, with safety, become accessory to criminal practices all too common. He can treble his income almost without effort. These are some of the temptations.

In the thousands of proprietary medicines handled by druggists, he who runs may read the lack of specific diagnosis and an unwillingness to take the trouble to substitute, for drugs, other measures of relief. Drugs used wisely, sparingly, and for a specific purpose, are helpful; they are needed. Proprietary medicines with few exceptions do not meet the requirements.

The physician is in the limelight as to his own personal methods and practices. He must sweep clean his own hearthstone—that is, he must sterilize his instruments; keep clean his office; he must by word and example teach and practice the fundamentals of hygiene which an enlightened public is be-

ginning to observe. To inspire confidence in the gospel, we must live by its truths.

No calling or profession is higher in standards; none charged with deeper responsibility, and none greater in obligations. Progress in any form of human activity inevitably brings hardships to individuals or classes; it may be mental suffering or financial ruin; it may be loss of prestige or disappointing adjustments. When power looms displaced those worked by hand, poverty reigned in the cottage of the English weaver. Until consumption of products increased, he endured starvation and destitution. Later he was rewarded by higher wages and easier work.

In the transitional stage of medical practice, the general practitioner is finding adjustment to a different regime necessary. It is the day of the specialist, the surgeon, the bacteriologist; the "family physician" seemingly bids fair to pass as other features of institutional life now forgotten. The development of hospital service and the nurse's profession seem to point toward specialization in diagnosis and treatment only by the recognized expert. This implies that the functions of the general practitioner may become more limited in the field of actual treatment, but it also implies that co-operation in the various lines of medical practice will be established and will strengthen rather than weaken his influence.

It is said that the great discovery of the nineteenth century was the child; I believe the great discovery of the twentieth century is health—conservation, further promotion of health as the most essential single element of social and personal well-being. Students of the art of healing have become students of the art of prevention; students of the social and economic phases of modern life have opened a perspective of remedies of social ills and substitution of such activities as will preclude their development. In their program of betterment, public health is foremost.

In response to this every state and city of the civilized world, awakened to the need of its citizens, has an organized health protection service. Those most advanced, like the cities of Germany, have the most effective organization. In this country we are just beginning to understand. In a few cities and fewer states efficiency is demanded; in a few, the protection afforded is almost in spite of the people themselves. But there is on record sufficient experimentation to prove that this

form of service is beyond belief, valuable to the community. Therefore, its realization in the concrete is only a question of time. In scope and in dignity it offers the doctor opportunity for the most exalted form of service to humanity.

The outlook is that the Department of Public Health will include the application of principles of sanitation and hygiene in their prevention aspects; the establishment and control of all features of community life which have for their object promotion of physical vigor, and supervision of all correlative activities. The executive—for there will be no boards—will be employed on merit and will be paid a salary commensurate with the responsibility of his position. He will be given authority to select his associates and his tenure of office will depend on excellence of service. He will be acknowledged as the most beneficent factor in the community well-being.

It takes no prophet to read in the sign of the times the future of health work. An enlightened public will demand that its health rights be enforced. But the noonday of hygienic excellence is yet far off. We who live in the dawn of this day are called to heroic tasks. The health executive of the present is harassed with the political shackles which bind every public official; he bears the gravest responsibility without authority; he is head of a system which is no system, and over the officials of which he has little, if any, jurisdiction. I need not give further details. It is a marvel that health service—with these restrictions—is not less efficient. This condition is the result of our political scheme and our inheritance from an age which was ignorant of the science of health. We have to be patient and do what we can.

In this transitional stage, I believe, the physician, specialist and practitioner alike, can do much to hasten the coming of a better order. In my own state the law requires the local unit, parish and community, to have a local health board and local health officer. It provides they shall act under the supervision and advice of the State Board of health and pass no ordinances in conflict with its powers. Under the provisions of this act, the acting health officer of the parish and the city or town must be a physician. In the municipal unit two of the board also are physicians. The law is explicit in relation to registration of births, deaths and marriages and the reporting of these to the State Board.

This act gives adequate power for effective work. The system is not at fault. Why, then, have we poor service or none at all? Lack in public sentiment, of course, is all important, but I wish to stress a phase which should come home to the physician.

In this program the doctor-health-officer is the most important factor. Does he realize his obligation? The majority seem to consider that they have none. They write frankly that if they do anything their practice will suffer, that they cannot afford to antagonize people, or to be misunderstood. With here and there an exception, they make no stand against violations of the sanitary code, nor do they attempt even those things which are simply educational. A few civic-minded will send to the state office a record of deaths and we have had reports of births also, but even this does not lie heavily on the conscience of the local physician-health-officer. His excuse is that physicians will not report, that they do not wish to let them know the details of their practice. If Louisiana were the only state where these conditions exist, the cause might be had in some local prejudice, or backwardness in demand for sanitary supervision, but in many other states the same indictment may be found.

It seems inexplicable that the physician, who by virtue of his knowledge and training, his intimate relation with suffering and sorrow and his power to assist in measures of alleviation, does not, will not give the help so much needed. It is equally unexplainable that one who subscribes to a code of ethics in spirit so lofty as that of the medical profession, should refuse, or even hesitate, to meet the requirements of the vital statistics law. In some communities, more progressive in health affairs, the health officer and board give most cordial co-operation. In those communities there is a lower typhoid and tuberculosis death rate, a decreasing infant mortality rate, and a greatly lessened number of cases of communicable diseases.

The attitude of indifference toward aggressive efforts in sanitation, toward the activities of a health department, is a legacy of the old regime; it is not consistent with the science of medicine as we know it; it is not in accord with the science of social oneness; it is not in harmony with the spirit of the profession. I have frankly set forth conditions that I may appeal to you to become—each of you, specialist, surgeon, expert, practitioner—militant auxiliary health officers. Whether your

law is similar to the one quoted or not, much must be done by the local health authorities. Go out of your way to give help. If you see violations of the sanitary code—and you cannot escape seeing them—report to the proper official. If you, as a physician, suspect milk from Mr. Blank's dairy, or the city water, or the well of one of your patients, or the meat which is served on your table, notify your health officer and follow up the notification. If you find the pesthouse bad, the hospital dirty, the barber shops transmitting agencies of disease, the dentist not careful in sterilization of instruments, have it in your conscience until the defect is remedied. If the state board needs you in court to testify to unsanitary conditions, or criminal practices, do not have a call to the city or to a meeting out of the state. Give testimony as to the truth of things which should not exist.

No doctor need fear the publicity which ensues as a result of defending the health rights of the people. In our state four years ago, they said publicity would antagonize, it would bring health work under ban, it would destroy the influence of the health officer; today, every hamlet in the state acknowledges the value of publicity as to sanitation and every unprejudiced citizen is ready with his words of approval. Publicity commends itself. In health matters it appeals to the people as their right. When coupled with justice and fairness, when impersonal and for community welfare, it is a policy which will not fail to receive public sanction and public support.

The physician who constitutes himself a guardian of health may make some man angry, but that same man in need of medical assistance will have confidence in the doctor who has the courage to live up to his conviction in the interest of community health.

In the health problem, whether of the community or the individual, the physician is only one-half, the public the other. The doctor may be without flaw; he may be the personification of wisdom and science; yet he cannot, without intelligent help of the right character, fulfill his function. The people must do their part. If too ignorant, or skeptical, or stingy, dire consequences follow.

Public health officials and physicians can give publicity to conditions which are a menace to health, but without the citizens' aid they can do nothing more.

Government can provide pure food, wholesome water, clean milk; it can control diph-

theria, typhoid, cholera, the plague, small-pox; but the *government* is all of us—every one—not just officials.

Perhaps the complaint which we hear most often over the telephone and read in the daily mail is "the officer doesn't do his duty." Make him do it; he is engaged in your service; your health is more to you than anything. But don't ask him to give his time and effort for nothing and don't ask him to run a \$3,000.00 business on \$50.00 or \$100.00, or even \$500.00. Don't think, too, that even with an adequate budget he can do the things which each must do for himself. He cannot see that your windows are open at night; that your food is well cooked; that you get enough sleep. If you wilfully lower your vitality, sanitary environments will not ward off illness.

The point is that each shall do his part; each understand the other and each co-operate toward the same end.

It is to me a great pleasure always to attend a meeting of physicians. The unity of effort implied indicates a right attitude of mind toward progress in the domain of practical medicine and applied hygiene. When the meeting is a joint one of citizens and medical men, the event is even more inspiring. Physicians themselves need a common basis of activity. It is of equal importance that citizens and physicians have mutual understanding as to the obligations of both in the prevention of disease and the promotion of health. Either, without the other, is helpless to remedy existing evils or to establish and maintain conditions of the highest order.

Intelligent diagnosis of community ills is the part of the expert—in finance, of the economist; in æsthetics, of the artist-engineer; in health, of the physician. Intelligent comprehension and provision of adequate means are the functions of the citizen body, but in the work of sanitation and hygiene, to lead is the obligation of the physician.

MERCURIALIZED SERUM.

Lloyd Thompson, Hot Springs, Ark. (Journal A. M. A., May 1, 1915), gives the following technic for the preparation and use of mercurialized serum, which he claims can prevent the occurrence of phlebitis and periphlebitis: "The method of procedure is as follows: From 40 to 50 c.c of blood are col-

lected by venipuncture and placed in a large test tube which has been boiled in salt solution. It has been found that the serum separates from the cloth much more rapidly and in considerably larger quantity if collected in a tube prepared in this manner, than if collected in one sterilized by dry heat. After preparation, the serum is poured off and thoroughly centrifugalized. A solution of mercuric chlorid is prepared so that each cubic centimeter contains 22 mg. ($\frac{1}{3}$ grain) of the salt. The serum is now measured and divided into two parts, one-third of the amount placed in one tube and the remainder in another. The mercury solution is added to the first part in the proportion of 1 c.c. to each 2 c.c. of serum. A heavy precipitate of albuminate of mercury appears, which is completely dissolved on the addition of the remainder of the serum. It will be seen that the mixture will contain 22 mg. ($\frac{1}{3}$ grain) of mercuric chlorid in each 7 c.c. At first I had great difficulty in keeping the albuminate of mercury in solution for any length of time, and prepared the solution fresh before each injection, but later discovered that if the mixture is heated in the water bath for one-half hour at 55 C. (131 F.) it will remain in solution indefinitely. It is not necessary to use autogenous serum. Blood may be collected from any individual and the mercurialized serum prepared and kept in sealed ampules. The injections are made into one of the veins at the elbow with an all-glass syringe and a 25-gage needle. It is imperative that the needle be sharp. A tourniquet is applied above the elbow until the veins stand out prominently. The field is sterilized with alcohol and the needle inserted in the direction of the blood stream, into the most prominent vein. A slight flow of blood into the syringe will indicate that the needle is within the lumen of the vein. The tourniquet is removed and the serum slowly injected. A drop of collodion is placed on the wound. The initial dose in all cases was 1.75 c.c., or 5.5 mg. (1-12 grain) of mercury, and was increased to 7 c.c., or 22 mg. ($\frac{1}{2}$ grain)." Thompson does not advocate this method of administering mercury as the method of choice in all cases of syphilis, but it is in certain cases in which quick results must be brought about, and in those cases in which intramuscular injections cause great pain.

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DR. WILLIAM R. BATHURST, Editor.

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ANONYMOUS COMMUNICATIONS.

Anonymous communications will not appear in the columns of this Journal, no matter how meritorious they may be.

Editorials.

THE LITTLE ROCK MEETING.

The thirty-ninth annual meeting of the Arkansas Medical Society was held at the old Presbyterian Church, Little Rock, May 3 to 6, inclusive. The meeting was a most successful one, both in attendance and in the splendid addresses of visiting physicians from our sister states.

The officers for the ensuing year, elected at the last session of the meeting, are: J. C. Wallis of Arkadelphia, president; C. J. Mareh of Fordyce, first vice president; F. T. Murphy of Brinkley, second vice president; O. M. Bourland of Van Buren, third vice president; C. P. Meriwether of Little Rock, secretary, re-elected, and William R. Bathurst of Little Rock, re-elected treasurer.

Councilors—First District, F. L. Nelson, Corning; Third District, H. H. Rightor, Helena; Fifth District, H. H. Henry, Eagle Mills; Seventh District, J. B. Crawford, Benton; Ninth District, Leonidas Kirby, Harrison. Vacancies exist only in the above districts.

Texarkana was chosen on the second ballot as the next meeting place. The selection was then made unanimous.

Among the notable features of the convention were the addresses of Dr. E. W. Saunders of St. Louis, on "The Green Fly as the

Universal Destroyer of Motor Function and of Life;" Dr. W. C. MacCarty of Rochester, Minn., on "A New Conception of Cancer With Its Practical Application;" Dr. Oscar Dowling of Shreveport, on "How to Keep the Well—Well," the surgical clinics, the public health meeting, the elegant reception at the hospitable home of Dr. Frank Vinsonhaler, the banquet of the County Secretaries' Association, and the banquet of the alumni of the Medical Department of the University of Arkansas and Tulane University.

HOUSE OF DELEGATES.

The House of Delegates met in the afternoon of the opening day, May 3. Dr. St. Cloud Cooper of Fort Smith called the house to order and the Rev. Sam Campbell, pastor of the Second Baptist Church of Little Rock was called to offer the invocation.

Dr. A. E. Harris welcomed the delegates on behalf of Little Rock, and Dr. T. B. Blakeley of Coal Hill responded on behalf of the delegates. President Cooper then delivered his address to the House of Delegates, and this was followed by the appointment of committees as follows:

Committee on President's Address—William R. Bathurst, M. L. Norwood and L. E. Willis.

Committee on Resolutions—H. Thibault, J. G. Eberle and Earle H. Hunt.

Reference Committee—O. M. Bourland, C. J. Mareh and Robert Caldwell.

Nominating Committee—J. C. Hughes, L. E. Willis, F. E. Thomas, J. T. Palmer, C. J. Mareh, M. L. Norwood, J. B. Crawford, A. L. Carmichael, J. H. Fowler and J. G. Eberle.

FIRST GENERAL SESSION.

The first general session was held on Tuesday morning, May 4, at the old First Presbyterian Church, northwest corner Fifth and Scott Streets, President St. Cloud Cooper presiding. After prayer by Rev. John Van Lear of the First Presbyterian Church, Mayor Charles E. Taylor for the city, and Dr. J. B. Dooley, president of the Pulaski County Medical Society, for the physicians of the city, welcomed the visiting members to Little Rock. Dr. J. B. Roe of Newark responded on behalf of the Arkansas Medical Society. Dr. St. Cloud Cooper then delivered the president's annual address, in which he deplored the small appropriation made by the legislature for the state board of health and paid special attention to the fee-splitting system. His address will be published in the next issue of The Journal.

Dr. R. A. Hilton of El Dorado was elected fraternal delegate to the annual meeting of the Texas State Medical Society in session at Fort Worth, and left that night to carry the greetings of the Arkansas Society.

SECOND DAY.

The proceedings of the second day opened with a business session of the House of Delegates, followed by the regular program.

Dr. Oscar Dowling, president of the Louisiana State Board of Health, made a notable address and a talk on the patent nostrum frauds, and Dr. C. W. Garrison, state health officer of Arkansas, pledged the support of the Board of Health and the Medical Society to all movements to suppress the evil. Other important papers were contributed by Drs. Lewis Wine Bremerman, Sam E. Thompson, C. Travis Drennen, Jabez N. Jackson, Charles Brookover and M. D. Ogden.

At Tuesday's meeting also candidates for the State Medical Board of the Arkansas Medical Society were named as follows:

First District—Drs. W. H. McKie, J. E. Bogart and R. Q. Patterson.

Second District—Drs. F. T. Isbell, A. T. Hogue and D. W. Goldstein.

Fifth District—Drs. A. L. Carmichael, W. F. Smith and C. B. Clark.

Vaccines exist only in these three districts.

FINAL SESSION.

The morning session of the last day of the annual meeting was devoted to the reading of scientific papers and a description by Frank B. Young, superintendent of the State Hospital for Nervous Diseases, of the workings of the hospital, in which he took occasion to ask physicians throughout the state to exercise greater care in preparing interrogatories for sending patients to the hospital.

The afternoon session was largely given over to the House of Delegates to attend to unfinished business, hearing of reports and the election of officers and next place of meeting.

It is estimated that four hundred of the progressive physicians of Arkansas attended the annual meeting after the opening day and the session will go down in the annals of the society as one of the most profitable ever held.

THURSDAY NIGHT'S SESSION.

On Thursday night, following the usual custom, a public health meeting was held and

it was one of the best the society has ever held in the kind of helpful papers read and the subjects treated, of which so much ignorance unfortunately exists as far as the laymen are concerned.

The weather was inclement and this fact affected the attendance, yet there was a good crowd, under the circumstances, and the papers were listened to with marked attention. The papers read were by Dr. E. C. Meyers, Fort Smith; Dr. Henry Thibault, Scott; Dr. J. T. Clegg, Siloam Springs, and F. Pitt Baker, of the Arkansas Tuberculosis Sanitarium at Booneville, Dr. C. W. Garrison presiding.

THE SCIENTIFIC PROGRAM OF THE ANNUAL MEETING.

Some criticism has been made of the scientific program at the recent annual meeting of the Arkansas Medical Society. There is some ground for dissatisfaction, but the Program Committee is not wholly to blame. It was the first meeting at which the various sections were eliminated and the committee felt that the time so gained would allow more papers to be read. This opinion would have been amply justified but for the fact that some of the first papers exceeded the time limit, and as the meeting progressed the presiding officer found that to admit all of the papers being read it would be necessary to dispense with the usual discussion to them. This was unfortunate, because the discussion following a paper is frequently as useful and helpful as the paper itself. With the experience thus gained, the committee next year will be better prepared to adjust the program to the hours devoted to it.

UNSKILLED TAMPERING WITH HUMAN AILMENTS.

One who wants his watch repaired sends it, not to a blacksmith, but to a skilled watchmaker; to one who knows the position and purpose of each of its delicate and intricate parts. Here the importance of expert service and the ability to render it are recognized. Not so, however, when the delicate life processes of a human being, rendered sensitive by sickness or injury, are in need of repair. Here the man who is careful to send his watch to an expert is likely to patronize the blacksmith when he or one of his family is ill. To recognize promptly and

positively many of even the common diseases requires a skilled diagnostician who understands the use of scientific laboratory methods. The successful treatment of diphtheria, malaria and syphilis—as examples—depends on an early and positive recognition of the causative agent, respectively, the Klebs-Loeffler bacillus, the *Plasmodium malariae*, and the *Treponema pallidum*. To be able to do this requires a knowledge of these organisms and skill in the use of the microscope and laboratory methods of diagnosis. The cure of many diseases, such as tuberculosis, cancer, spinal meningitis, etc., depends not only on a positive, but especially on an early diagnosis, and this, likewise, requires a thorough training in modern medicine. Without a training in scientific methods, the diagnosis of these diseases is uncertain, or impossible, since the signs and symptoms easily lead to their being confused with disorders requiring radically different methods of treatment. Without a correct diagnosis any form of treatment is guesswork and unscientific. A training in the branches fundamental to modern scientific medicine is an essential qualification for all who undertake to treat human ailments, no matter what treatment be adopted. This, in the opinion of The Journal of the American Medical Association, is a fundamental fact that defies contradiction. It is immaterial whether the treatment be a form of massage or tissue manipulation, and given under the name of osteopathy, Chiropractic, naprapathy or spondylotherapy; whether it be psychotherapy, given under the name of Christian Science, mental healing, or what not—the fact remains that any legislation relative to the regulation of what is known as the practice of medicine—that is, the healing of the sick—that does not recognize this fundamental fact is not in the interest of the public health or the public good.

THE UNITED STATES SUPREME COURT AND MEDICAL CULTS.

In the treatment of human ailments, the matter of primary importance to the conscientious practitioner is the diagnosis. What is causing the trouble? On the answer to this question depends the treatment, no matter whether the “doctor” is a physician, an osteopath, a chiropractor, a mental healer, or what not. The diagnosis being the essential, unless the “doctor” is sufficiently well trained to make a diagnosis, he is not quali-

fied to treat the patient intelligently by any method whatever. Treatment is certainly of great importance, and from the patient's point of view is doubtless most essential. But without a knowledge of the disease—of the actual condition—treatment is guesswork. These fundamental facts are so often ignored in the claims of sectarian cults that the clear-cut statements in one of several decisions in regard to these matters by the United States Supreme Court are repeated by The Journal of the American Medical Association in an editorial in its State Board number, April 24. “The court,” says The Journal, “decisively pushed aside the masses of argument regarding the ‘rights’ of this, that or the other medical sect, and revealed the real point at issue—the necessity for sufficient fundamental knowledge of the human system to qualify one to make a diagnosis. The court emphasized that in order to make a diagnosis the practitioner of osteopathy, or any other cult, must have the same scientific training as is required of physicians. It is clearly the duty of the state, therefore, to provide an educational qualification which will guarantee that every licensed practitioner shall be competent to make an intelligent diagnosis. Certainly the public has the right to expect that only those who are competent will be given the state's endorsement, conferring on them the right to treat human ailments.”

Personals and News Items.

The American Medical Association meets this year in San Francisco, from June 21 to 25, inclusive.

Dr. and Mrs. Charles R. Shinault and their daughter Josephine visited in Little Rock this month.

Dr. Robert Caldwell, of Little Rock, State Delegate to the San Francisco meeting of the American Medical Association, will leave here June 13 and return on or about July 1.

Dr. Frank B. Young, superintendent of the State Hospital for Nervous Diseases, was elected vice president of the State Conference on Social Welfare at their recent meeting in Pine Bluff.

Dr. Seale Harris, secretary-treasurer of the Southern Medical Association and editor of The Southern Medical Journal, visited in Little Rock during the meeting of the State Society.

Governor George W. Hayes announces the appointment of Drs. W. F. Smith, Little Rock; J. A. Bogart, Forrest City, and F. T. Isbell, Horatio, as the new members on the State Board of Examiners of the Arkansas Medical Society.

ARKANSAS OPHTHALMOLOGISTS ORGANIZE.

On Wednesday evening, May 5, during the meeting of the State Society in Little Rock, the Arkansas Ophthalmological Society was organized. Present: Drs. Robert Caldwell, W. T. McCurry, J. G. Watkins, W. B. Hughes, Little Rock; Wm. Breathwit, Pine Bluff; H. H. Rightor, Helena, and J. W. Ramsey, Jonesboro.

The following officers were elected for the ensuing year:

President—William Breathwit, Pine Bluff.

Secretary-Treasurer — Robert Caldwell, Little Rock.

Committee on Constitution and By-laws—W. B. Hughes, J. G. Watkins and W. T. McCurry.

Program Committee—Drs. Watkins, McCurry and Caldwell.

The next meeting will be held on the second Tuesday in September at Little Rock.

COUNTY HEALTH OFFICERS.

County Health Officers Appointed by the Arkansas State Board of Health, May 7, 1915.

FIRST DISTRICT.

Dr. B. A. Fletcher, McClendon.

Clay County—Dr. M. C. Hughey, Rector.
Craighead—Dr. C. M. Lutterloh, Jonesboro.
Crittenden—Dr. L. C. McVay, Marion.
Cross—Dr. W. H. McKie, Wynne.
Greene—Dr. E. S. Baker, Paragould.
Lee—Dr. O. L. Williamson, Marianna.
Mississippi—Dr. O. Howton, Osceola.
Phillips—Dr. M. Fink, Helena.
Poinsett—
St. Francis—Dr. P. P. Boggan, Forrest City.
Woodruff—Dr. R. N. Smith, Augusta.

SECOND DISTRICT.

Dr. C. F. Crosby, Heber Springs.

Cleburne—Dr. W. J. Hornbarger, Heber Springs.
Fulton—
Independence—Dr. W. B. Lawrence, Batesville.
Izard—Dr. E. A. Baxter, Melbourne.
Jackson—Dr. G. K. Stephens, Newport.
Lawrence—Dr. J. C. Swindle, Walnut Ridge.
Monroe—Dr. P. E. Thomas, Clarendon.
Randolph—Dr. W. E. Hamil, Pocahontas.
Prairie—Dr. J. C. Gilliam, Des Arc.
Sharp—Dr. T. J. Woods, Evening Shade.
Stone—Dr. J. E. Luther, Mountain View.
White—Dr. J. M. Jelks, Searcy.

THIRD DISTRICT.

Dr. J. T. Clegg, Siloam Springs.

Baxter—Dr. T. J. Tipton, Mountain Home.
Benton—Dr. C. E. Hurley, Bentonville.

Boone—Dr. D. E. Evans, Harrison.
Carroll—Dr. C. A. George, Berryville.
Madison—Dr. Fred Youngblood, Huntsville.
Marion—Dr. A. M. Elton, Yellville.
Newton—Dr. J. O. McFerrin, Jasper.
Searcy—Dr. S. G. Daniel, Marshall.
Van Buren—Dr. R. M. Hunter, Clinton.
Washington—Dr. H. D. Wood, Fayetteville.

FOURTH DISTRICT.

Dr. H. R. Webster, Texarkana.

Crawford—Dr. J. E. Blakemore, Van Buren.
Howard—Dr. D. A. Hutchinson, Nashville.
Little River—Dr. P. H. Phillips, Ashdown.
Logan—Dr. I. H. Jewell, Paris.
Miller—Dr. L. J. Kosminsky, Texarkana.
Montgomery—Dr. L. S. Kennedy, Mt. Ida.
Pike—Dr. N. J. Slaughter, Delight.
Polk—Dr. G. P. Dunman, Mena.
Scott—Dr. L. D. Duncan, Waldron.
Sebastian—Dr. E. C. Myers, Fort Smith.
Sevier—Dr. R. L. Hopkins, DeQueen.

FIFTH DISTRICT.

Dr. W. F. Smith, Little Rock.

Conway—Dr. C. D. Clark, Morrilton.
Faulkner—Dr. G. S. Brown, Conway.
Franklin—Dr. Thos. S. Douglas, Ozark.
Johnson—Dr. L. C. Gray, Clarksville.
Perry—Dr. M. N. Spencer, Perry.
Pope—Dr. R. L. Smith, Russellville.
Pulaski—Dr. J. P. Sheppard, Little Rock.
Yell—Dr. J. R. Linzy, Dardanelle.

SIXTH DISTRICT.

Dr. S. A. Southall, Lonoke.

Arkansas—Dr. B. L. Hill, Stuttgart.
Cleveland—Dr.
Dallas—Dr. C. J. March, Fordyce.
Desha—Dr. R. F. White, McGehee.
Drew—Dr. M. B. Corrigan, Monticello.
Garland—Dr. J. S. Woods, Hot Springs.
Grant—
Hot Spring—Dr. R. Y. Phillips, Malvern.
Jefferson—Dr. W. H. Blankenship, Pine Bluff.
Lincoln—Dr. J. K. McClain, Star City.
Lonoke—Dr. S. A. Southall, Lonoke.
Saline—Dr. J. W. Walton, Benton.

SEVENTH DISTRICT.

Dr. L. A. Buckner, Dermott.

Ashley—Dr. J. H. Simpson, Hamburg.
Bradley—Dr. G. L. Wilson, Hermitage.
Calhoun—Dr. D. F. Wilson, Hampton.
Chicot—Dr. M. M. Norton, Lake Village.
Clark—Dr. W. T. Rowland, Arkadelphia.
Columbia—Dr. H. A. Longino, Magnolia.
Hempstead—Dr. P. B. Carrigan, Hope.
Lafayette—Dr. D. W. Bright, Lewisville.
Nevada—Dr. S. J. Hesterly, Prescott.
Ouachita—Dr. A. Davison, Camden.
Union—Dr. R. E. Roland, El Dorado.

THIRTY-SIXTH ANNUAL COMMENCEMENT OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF ARKANSAS.

The thirty-sixth annual commencement of the Medical Department, University of Arkansas was held May 13 at the high school auditorium, Fourteenth and Scott streets, Little Rock. The degrees were conferred by Governor Hays, ex-officio president of the

Board of Trustees of the department, after the annual commencement address was delivered by Judge W. E. Hemingway of Little Rock.

The Arkansas Medical Society gold medal for the member of the class having the highest average in scholarship during the four-year course was awarded to Joseph P. Bremer of Bourbon, Mo., by Dr. C. P. Meriwether, secretary of the society. Nim L. Barker of Harrison and Nicholas W. Riegler of Little Rock received honorable mention. Other prizes were awarded as follows:

Dr. E. R. Dibrell prize, copy of Rosenau's Preventive Medicine, to Nicholas W. Riegler of Little Rock; Prof. Pemberton's prize, text of physiology, to R. C. Dickinson of Horatio, for the best grade in physiology; Prof. Cunningham's prize, Edgar's text, to S. B. Hinkle of Guion, for the best grade in obstetrics; best grade under Dr. A. E. Harris, Joseph P. Bremer, copy of Tyson's Practice of Medicine; best examination under Dr. F. Vinsonhale, Fred S. Watson, Amity, case of surgical instruments.

THE GRADUATES.

Those who received degrees were: Nim Lou Barker, Harrison; Joseph Peter Bremer, Bourbon, Mo.; Howard William Brewer, Kineo, Mo.; Grover C. Bruce, Dabney; Robert Homer Bryant, Rector; Charles William Hall, Greenwood; Jacob Brad Hesterly, Prescott; Shelby Boone Hinkle, Guion; Lincoln Humphreys, Argenta; Samuel Neeley Hutchinson, Horn Lake, Miss.; Walter Monroe Matthews, Jr., Des Arc; Malvin William Owens, Nashville; Samuel Lawson Reveley, Little Rock; Nicholas William Riegler, Little Rock; Rufus Hansen Sherrill, Idabell, Okla.; Holman Bennett Thompson, Spielerville; Perry Vernon Wagley, Harrison; Fred Somerville Watson, Amity; Jerome Wright, Dardanelle.

THERAPEUTIC NOTES.

Fluid extract of licorice will cover the taste of many disagreeable drugs, aside from quinin. For this purpose it goes well with calcium chlorid, potassium bromid, chloral and many bitter drugs like apocynum.

Acetyl-salicylic acid and sodium bicarbonate are chemically incompatible, but practically they may be prescribed together with advantage.

Chromium sulphate, grs. viii in capsule after meals, is a valuable remedy to decrease fre-

quency of urination due to enlarged prostate. It is not necessary to use the proprietary tablets. Any good preparations of chromium sulphate is efficient.

A combination of tr. aconite and spt. etheris nitrosi is a good remedy for excessive blood pressure. Of course, removal of the cause is always in order providing you are able to do so.—The Bulletin El Paso County Medical Society.

BORIC ACID.

Boric acid, as an adjuvant to the other remedies, is extensively used in diseases of the skin, and as D. W. Montgomery of San Francisco points out, its subsidiary position does not detract from its importance, though it receives less notice than it deserves in the text-books. Besides its mild and nonirritating antiseptic property, it is soothing, and when added to water it increases its tonicity and prevents the detrimental action that may possibly occur. The diseases in which he finds it sufficiently useful to be specially mentioned, are acne, where soaking with a hot boric acid solution is often of great benefit; pyogenic infection of the skin; furuncle, especially styes; impetigo contagiosa, where a boric and a starch poultice is one of the best applications for first treatment, the crust being removed with an ointment composed of fifteen parts of ammoniated mercurial ointment and thirty parts of zinc oxid ointment; perleche (streptococcic infection of the corners of the mouth); runarounds, and various discharging diseases of the skin. The boric acid ointment of the Pharmacopia has a multitude of uses as an excellent nonirritating preparation, and is one ointment that is generally well made. The presence of boric acid in so many proprietary remedies is a good evidence of its generally appreciated usefulness.—Journal A. M. A.

NARCOTIC LAW.

SYNOPSIS OF RULINGS ON QUESTIONS RELATING TO THE ACT OF CONGRESS APPROVED DECEMBER 17, 1914, KNOWN AS THE HARRISON NARCOTIC LAW.

Treasury Department,
Office of Commissioner of Internal Revenue.
Washington, D. C., March 9, 1915.

The following synopsis of rulings on questions relating to the narcotic law is published for the information of internal revenue officers and others concerned. All rulings or parts of rulings heretofore made which are in conflict herewith are hereby revoked:

Administration, external and internal.—Liniments, ointments, or other preparations containing drugs not specifically exempt, used for oral, nasal, aural, ocular, rectal, urethral, or vaginal administration are not in such cases used externally and are therefore not exempt from the provisions of this law.

Attendance (personal), definition of.—A physician, dentist, or veterinarian must actually be absent from his office and in personal attendance upon a patient in order to come within the exemption of Section 2, paragraph A, of this law.

Department stores handling drugs.—A general merchant who handles any of these drugs or preparations under authority of the state laws must register and pay the special tax required by the federal law.

Diacetyl morphin.—As this is the chemical name for heroin, it will be classed as such.

Drugs dispensed, record of.—A physician or dentist who administers minute quantities of drugs coming within the scope of this law in his office may keep a record of the date when a stock solution is made and the date when such stock solution is exhausted without keeping a record of the name and address of each patient to whom such drugs are administered. This plan will be allowed, however, only in cases of those physicians and dentists who use minute quantities of these drugs, such as oculists, aurists, and other specialists; but where a physician engaged in a general practice otherwise administers such drugs it will be necessary for him to keep a record of the name and address of the patient, of all drugs dispensed, distributed or administered in his office, and of such drugs left with a patient to be taken in his absence. Only such drugs as are personally administered by a physician to a patient when away from his office are exempt from record.

Drugs delivered, receipts for.—A retail dealer in filling a prescription or order form calling for any of the drugs coming within the scope of this law is not required to demand a receipt therefor.

Druggists engaged in more than one business.—A retailer having more than one place of business, or, if in any case, the retailer is engaged in more than one profession or business where any of the drugs coming within the scope of this law are made, stored or dispensed, should make application for registration in each such case.

Employes of registered persons.—Persons registered under this law will be held responsible for the acts of their employes in dispensing or distributing any of the drugs coming within the scope of this law.

Exemption of certain preparations.—The exemptions provided in Section 6 of this law are held to apply only to United States Pharmacopœia standard preparations or to remedies prepared under private formula, such as are usually carried in stock by druggists and dispensed without prescriptions, and not to pseudo preparations or remedies prepared, prescribed or sold on account of the narcotic drug contained therein.

Fraudulent prescriptions.—A druggist, when receiving a prescription for any of the drugs coming within the scope of this law, should carefully scrutinize such prescriptions, and where he has reason to believe that the same is forged or that the quantity of drug prescribed is unusually large, he should, before filling such prescription, satisfy himself that the same is genuine and properly prepared. Every druggist should know the signature of the reputable legitimate physicians in his locality, and should he

fill a fraudulent prescription he should be liable to prosecution.

Hospitals and sanatoriums must keep a record of drugs dispensed, distributed or administered therein.

Inventories must be retained on file by person making same and not sent to the collector of internal revenue or the treasury department. Such inventories must be sworn to.

Name in full—Meaning.—A physician may sign prescriptions calling for drugs coming within the scope of this law the same as he would sign a check or legal document, *i. e.*, J. H. Smith, John H. Smith, or John Henry Smith.

Nurses, status of.—Not allowed to register and can only have narcotic drugs in their possession under direction of registered physician. Can only obtain supplies of such drugs upon registered physician's prescription and only when nursing patient of such physician.

Ointment, liniments, etc., for external use only, containing more than the quantity of drugs specifically exempt under Section 6 can be dispensed or distributed without complying with its provisions, only when such ointments, liniments and other preparations contain ingredients rendering them unfit for internal administration—in other words, they must be denatured.

Opium, definition of.—In making calculations on the amount of opium present in any given preparation, this office will take the United States Pharmacopœia standard for *opii pulvis* (powdered opium) containing 12 per cent to 12.5 per cent of morphin.

Order forms not to be used as prescription blanks.—Original and duplicate order forms are only to be used for obtaining a supply of the drugs and preparations covered by this law and can, under no circumstances, be used as a prescription.

Paregorie, status of.—Camphorated tincture of opium, prepared according to the United States Pharmacopœia standard, contains not quite two grains of powdered opium to the fluid ounce and is, therefore, exempt from the provisions of this law.

Partnerships of physicians.—Where two or more physicians, dentists or veterinary surgeons are in partnership, doing business under a firm name, it is necessary for the firm to be registered, the firm registry number to be indicated in ordering any of the drugs for use in the office practice of the members of the firm; each individual physician, dentist or veterinary surgeon in such partnership should register and pay the special tax under his own name, if also engaged in private practice.

Physicians, dentists and veterinarians practicing in more than one district.—If maintaining an office in more than one internal revenue district, must register in each district. If not maintaining more than one office registration in one district permits him to practice in any other district with but one registration.

Prescription blanks.—A physician, dentist, or veterinary surgeon can make use of any prescription blank, provided the same is properly dated and signed and has indicated thereon the physician's address, his registry number, and the name and address of the person for whom the prescription is written. The government does not furnish a form on which prescriptions may be written and the special order form cannot be used for this purpose.

Prescriptions, partial filling of.—Original prescriptions only can be lawfully filled by druggists, and the partial filling of such prescriptions, from time

to time, where large quantities of drugs have been prescribed, will, under no circumstances, be permitted.

Proprietary preparations with an exempted amount of narcotic drug.—It will not be necessary for a registered physician, in order to secure patent or proprietary medicines containing less than amounts named in Section 6 of this law, to furnish with such order a government blank.

Refilling prescriptions.—Only original prescriptions can be filled by druggists and apothecaries and cannot be refilled without violating this law.

Registration, who eligible for.—The following persons, legitimately engaged in the practice of their profession and dealers allowed by the state laws to handle narcotic drugs are eligible to registry under this law: Persons engaged in the practice of medicine and surgery, persons engaged in the practice of dentistry, persons engaged in the practice of veterinary medicine and surgery, persons engaged in the importation and sale of drugs, persons engaged in the manufacture and sale of drugs at wholesale, persons engaged in the manufacture and sale of drugs at retail.

An osteopath, therefore, or other person heretofore administering these drugs, if not classed as a physician in the state in which he resides, would not be permitted to register under this law.

DAVID A. GATES,

Acting Commissioner of Internal Revenue.

Approved:

W. G. McADOO,

Secretary of the Treasury.

New and Nonofficial Remedies.

Since publication of New and Nonofficial Remedies, 1915, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies:"

STANDARD RADIUM SOLUTION FOR BATHING.—A 5.2 per cent barium chlorid solution containing radium chlorid equivalent to 4.2 micrograms of radium per bottle. For "Actions and Uses" see the article on radium in New and Nonofficial Remedies. The barium in the solution is said to have no effect. The contents of a bottle, containing 4.2 microcuries or 10,000 Mache units, are used for a bath. The Radium Chemical Company, Pittsburgh, Pa. (Journal A. M. A., April 17, 1915, p. 1325).

STANDARD RADIUM SOLUTION FOR DRINKING.—A mixture consisting chiefly of silica and small quantities of carnotite, 450 gm. containing 0.45 micrograms of radium in the form of radium sulphate. For "Actions and Uses" see the article on radium in New and Nonofficial Remedies. For use, the earth is mixed with water and heated for a time.

The Radium Chemical Company, Pittsburgh, Pa. (Journal A. M. A., April 17, 1915, p. 1325).

STANDARD RADIUM COMPRESS.—A compress containing 225 gm. of a mixture consisting chiefly of silica and barium sulphate radium. For "Actions and Uses" see the article in New and Nonofficial Remedies on radium. Being applied wet, it is claimed that the action is partly due to beta and gamma radiation of the radium salt and partly to the radium emanation which is dissolved out by the water. The Radium Chemical Company, Pittsburgh, Pa. (Journal A. M. A., April 17, 1915, p. 1325).

Propaganda for Reform.

PEACOCK'S BROMIDS.—A report of the Council on Pharmacy and Chemistry points out that Peacock's Bromids (The Peacock Chemical Company), said to contain the bromids of potassium, sodium, ammonium, calcium and lithium equivalent to fifteen grains of potassium bromid per fluid dram, is secret in composition in that the amount of the individual bromids is not stated. The report contradicts the asserted uniformity of the preparation and the claim of superiority. It questions the asserted advantage of a mixture of bromids over a simple bromid solution and holds that, if there were any advantages in prescribing such a mixture of bromids, the physician should regulate their proportions. The report further points out that the therapeutic claims are misleading and not in accordance with modern teachings and practice. Thus, while the Peacock company advises the liberal use of bromids in the treatment of epilepsy, the best clinical teaching advises the avoidance of bromids as far as possible (Journal A. M. A., April 3, 1915, p. 1177).

CHIONIA.—A report of the Council on Pharmacy and Chemistry discusses the claims made for Chionia (The Peacock Chemical Company), said to be "a preparation of chionanthus virginica"—a drug which is generally conceded to be worthless and which has been the subject of an unfavorable report of the Council. While claiming Chionia to be a "potent hepatic stimulant," the exploiters appear to appreciate its inefficiency, for it is advised to combine the nostrum with drugs of recognized potency, such as the heart tonics and laxatives in passive conges-

tion of the liver, mercurial purge, podophyllin or sodium phosphate in "biliousness," etc. (Journal A. M. A., April 3, 1915, p. 1178).

DR. MAY'S FORMULA.—Dr. May's Formula, formerly called May's Epeleptide, is sold on the mail order plan by Dr. W. H. May Medical Laboratory, New York. Examination in the A. M. A. Chemical Laboratory indicated that this "epilepsy cure" contains ammonium bromid and sodium bromid as the essential constituents, the bromid content being equivalent to fifteen grains of potassium bromid per fluid dram (Journal A. M. A., April 3, 1915, p. 1178).

HAGEE'S CORDIAL.—The Council on Pharmacy and Chemistry reports that Hagee's Cordial of the Extract of Cod Liver Oil (Katharmon Chemical Company) has neither the nutritive qualities nor the reconstructive efficacy of cod liver oil and that it is worthless for the conditions for which it is advertised. Recent experiments having shown that cod liver oil, like butter and egg yolk, possesses certain growth-promoting properties not found in some other fats, the promoters of Hagee's Cordial claim these properties of cod liver oil for their extract. The Council has previously expressed the opinion that cod liver oil owes its value in the main or entirely to its fatty constituents. Now the Connecticut Agricultural Experiment Station has demonstrated that the growth-promoting properties of cod liver oil are not to be found in Hagee's Cordial (Journal A. M. A., April 10, 1915, p. 1262).

WAMPOLE'S PREPARATION.—Wampole's perfected and tasteless preparation of an extract of cod liver oil (H. K. Wampole Company, Inc.) is marketed under a nonquantitative and therefore practically worthless statement of composition. Experiments carried out at the Connecticut Agricultural Experiment Station have demonstrated that the Wampole preparation, which also contains extract of malt and sugar, does not possess the advantages over ordinary cod liver oil as a source of nutriment, as claimed. Neither did the Wampole preparation appear to possess to any marked degree the reconstructive properties of cod liver oil, butter fat and egg yolk. The Council on Pharmacy and Chemistry held Wampole's perfected and tasteless preparation of an extract of cod liver oil ineligible for New and Nonofficial

Remedies, because, contrary to claim, it lacks both the nutritive and reconstructive properties of cod liver oil, and because it is marketed under an indefinite name and under unwarranted claims (Journal A. M. A., April 10, 1915, p. 1262).

THE ELECTRO-CHEMICAL RING.—A post-office fraud order has put a stop to the sale of this silly contrivance. This ring, put on the market by the Electro-Chemical Ring Company, Toledo, Ohio, was found to be made of ordinary iron. It was claimed to cure diseases caused by acid in the blood, among which were stated to be Bright's disease, diabetes, epilepsy and cataract (Journal A. M. A., April 10, 1915, p. 1263).

DR. CRONEY'S SPECIFIC FOR EPILEPSY.—This epilepsy "cure" is sold on the mail-order plan by Dr. James T. Croney of Columbus, Ohio. Examination in the A. M. A. Chemical Laboratory showed it to be a solution containing ammonium bromid and potassium bromid as essential constituents, containing bromid equivalent to 16.9 grains potassium bromid per dose of two teaspoonsful (two fluid drams). Like other epilepsy "cures," Croney's Specific for Epilepsy is a bromid mixture and is both worthless and dangerous (Journal A. M. A., April 17, 1915, p. 1344).

THE QUALITY OF BLAUD'S PILLS.—An examination of the various brands of Bland's pills supplied by manufacturing houses, made in the A. M. A. Chemical Laboratory, refutes the commonly assumed instability of ready-made Bland's pills. On the other hand, it is shown that the Bland's pills on the market are not very reliable as to the amount of iron present, the variation ranging from 77 to 183.2 per cent of the claimed amount of ferrous carbonate. The different brands also differed widely in their ease of disintegration. The special forms, such as the "nascent" preparations, the "soft mass" pills and the gelatin encapsulated oily suspension, sold as "Frosst's Bland Capsules," showed no advantage over the ordinary kind (Journal A. M. A., April 17, 1915, p. 1344).

LACTOBACILLINE OMITTED FROM N. N. R.—The Franco-American Ferment Company is offering its lactobacilline preparations direct to the public. The company has distributed circulars in which the public is informed that auto-intoxication is the cause of innumerable ills, that the Bulgarian bacillus is a "wonder-

ful corrective or remedy" for such conditions and that the lactobacilline products and—by inference—the only reliable products. In view of the action of the Franco-American Ferment Company and the tendency to cause the public to exaggerate slight ailments into alarming conditions, the Council on Pharmacy and Chemistry has deleted the lactobacilline products from New and Nonofficial Remedies (Journal A. M. A., April 17, 1915, p. 1346).

OLIVINE.—Olivine was a liquid soap put on the market by the To-Kalon Manufacturing Company, Syracuse, N. Y. It was declared misbranded under the Federal Food and Drugs Act, because, contrary to claim, it was not made from olive oil, because boroglycerin was absent and because it had neither antiseptic or germicidal action (Journal A. M. A., April 17, 1915, p. 1346).

FRECKELESS.—Freckeless, J. E. Barry, Paris, Tex., was sold for the removal of freckles, sunburn, tan, etc. It was found to be a petrolatum ointment of bismuth subnitrate and ammoniated mercury. Freckeless was declared misbranded under the Food and Drugs Act because it was not harmless, as claimed, and because it was not a skin food, as claimed (Journal A. M. A., April 17, 1915, p. 1346).

VERACOLATE.—The Council on Pharmacy and Chemistry reports that "Veracolate (plain)" (The Marcy Company, Boston, Mass.) is semisecret in composition, unscientific in combination and exploited under unwarranted claims. It reports that the same criticisms apply to "Veracolate with Pepsin and Pancreatin" and "Veracolate with Iron, Quinin and Strychnin." For "Veracolate (plain)" the following nonquantitative formula is given: "A compound containing the bile acids, sodium glycocholate, sodium taurocholate with cascara sagrada and phenolphthalein." "Veracolate with Pepsin and Pancreatin" is said to contain, in addition to the indefinite "Veracolate," the two mutually incompatible ferments, pepsin and pancreatin, and oil of peppermint. The complexity of "Veracolate with Iron, Quinin and Strychnin" was increased so that this unscientific mixture is claimed to contain seven constituents. These products are discreditable to the medical and pharmaceutical profession alike, and their use is against the public good (Journal A. M. A., April 24, 1915, p. 1440).

TAUROCOL.—The Paul Plessner Company, Detroit, Mich., markets Taurocol and Taurocol Compound Tablets. The company makes a pretense of giving the formula—minus any quantities—thus: "Taurocol is a combination of bile salts, extract of cascara sagrada, phenolphthalein and aromatics." Taurocol Compound Tablets are said to contain, in each, "Taurocol (bile salts), gm. .1296; "Pepsin 1-3000," gm. .0324; "Pancreatic Ext.," gm. .0324; "Extract Nux Vomica," gm. .0081, and "Aromatics" q. s. The Council on Pharmacy and Chemistry points out that the composition and the therapeutic preparations are essentially the same as those claimed for Veracolate and Veracolate with Pepsin and Pancreatin. It reports that the objections made to these also apply to Taurocol and Taurocol Compound Tablets (Journal A. M. A., April 24, 1915, p. 1441).

THE CONVERSE TREATMENT.—This is a Columbus, Ohio, epilepsy "cure." An examination in the A. M. A. Chemical Laboratory showed that each 100 c.c. contained 7.3 gm. ammonium bromid, 5 gm. calcium bromid and 8.7 gm. potassium bromid, the bromid content being equivalent to 14.5 gm. potassium bromid per fluid dram (one teaspoonful). Despite this bromid content, the exploiters have in the past stated the epilepsy cures containing bromids "tend to aggravate the trouble in the long run" (Journal A. M. A., April 24, 1915, p. 1441).

Obituary.

William F. Baskerville, M. D., Tulane University, 1889, one of the best known surgeons in western Arkansas; major Medical Corps Arkansas National Guard; local surgeon for Rock Island railroad; for fifteen years a practitioner of medicine and surgery in Booneville, Ark.; member of the county and state medical societies, and the American Medical Association, died at his home May 6, of pneumonia, age 49.

County Societies.

ARKANSAS COUNTY.

(Reported by M. C. Jolm, Sec'y.)

Stuttgart, April 15.—The Arkansas County Medical Society met May 13, in DeWitt. Members present: Winkler, Lomsden, Park, Rasco, A. M. Lowe, Dickens and John.

The committee reported favorably on Dr. Homer Dickens' application and he was elected to membership to this society.

Drs. Breathwit and Stewart of Pine Bluff were visitors. Dr. Breathwit read a very interesting and instructive paper on "Vincent's Angina." Dr. Stewart gave some valuable information on the Harrison act as it applies to the practitioner.

After refreshments, which were served by the host, Dr. Winkler, the society adjourned to meeting on the second Tuesday in July, at Gillett.

POLK COUNTY.

(Reported by A. J. Robbins.)

The following resolution was adopted at our last meeting:

Whereas, The American Medical Association is favoring and working for reciprocity among the Southern states, for the convenience and advantage of the properly qualified and legalized members of the medical profession, to the end that they may not be hampered in their movements from one Southern state to another, in search of health, change of climate, or richer fields in which to spend their energies; therefore, be it

Resolved, That we heartily approve of the efforts of the American Medical Association to secure reciprocity between the Southern states, and request our delegate to attend the next meeting of the Arkansas State Medical Society, to present this resolution and to work and vote at said meeting to uphold the American Medical Association in this noble effort.

Resolved further, That it is the sense of this body that the law be so framed that quacks, legalized in one state, will be prohibited from benefiting by said law.

A. J. ROLLINS, M. D.,
D. W. CONNALLY, M. D.,
J. G. KILTON, M. D.,
Committee.

Book Reviews.

Differential Diagnosis.—Presented through an analysis of 317 cases. By Richard C. Cabot, M. D., Assistant Professor of Clinical Medicine, Harvard Medical School. Octavo of 709 pages, 254 illustrations. W. B. Saunders Company, Philadelphia 1914. Cloth, \$5.50; half morocco, \$7.00.

The previous edition of this work dealt with the symptom *pain*, and with eleven other common symptoms. In this volume the same

plan has been carried further. Nineteen other symptoms have been selected, analyzed and illustrated.

Diagnostic and Therapeutic Technic.—A manual of practical procedures employed in diagnosis and treatment. By Albert S. Morrow, M. D., Clinical Professor of Surgery, New York Polyclinic. Second edition, thoroughly revised. Octavo of 834 pages, with 860 illustrations. Philadelphia, 1915. Cloth, \$5.00 net; half morocco, \$6.50 net.

This volume comprises a description of certain general diagnostic and therapeutic methods and the measures employed in the diagnosis and treatment of diseases affecting special regions and organs of the body. While some of the methods belong essentially to the domain of the specialist, the majority are the every-day practical procedures which the general practitioner may at any time be called upon to perform. Each procedure is given in detail.

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The Secretary of the County Society will please notify The Journal immediately of any error or change in these offices.

D I R E C T O R Y

OF THE

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THE JOURNAL

OF THE Arkansas Medical Society

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VOL. XII

LITTLE ROCK, ARK., JUNE, 1915

No. 1

Original Articles.

ANNUAL ADDRESS.*

St. Cloud Cooper, M. D., F. A. C. S.,
President of the Arkansas Medical Society,
Fort Smith.

Gentlemen of the Arkansas Medical Society:

Another May has come and we are assembled for our annual meeting. Since our last session at El Dorado, we have been hard at work at our various stations attending to our duties as practitioners of medicine and as citizens of this great commonwealth. We will enjoy a few days of rest from our accustomed daily work and return to our people refreshed and ready to take up our burdens again.

As president of the Arkansas Medical Society, I wish first to express my thanks and gratitude for this honor. I take it that in electing me to preside at this meeting it was not on account of individual merit, or on account of what I have done for this society in the past, but rather to honor that great army of general practitioners of which class I am proud to be a member.

Second, I wish to thank the Committee on Program, the Committee on Entertainment, the genial, smiling Dr. Meriwether, whose zeal and industry have contributed much to make this meeting a success. I wish also to thank our learned editor of The Journal, Dr. Bathurst, for his unceasing efforts in behalf of the society; the various standing committees; the councilors and delegates for faithful duties performed, and lastly the members for their attendance. I greet you all and say to you I am glad to be with you again and hope to be with you for many years to come.

These yearly meetings are one of the pleasures of my life, and when circumstances are

such that I am compelled to miss a meeting, and this has occurred but a few times since I have been a member, I feel that I have suffered a great loss. I always look forward to these meetings with great anticipation, for here we come to get new inspirations; to meet old friends and to make new ones, and to rest a few days from our labors. It is a pleasure to meet the young doctor just starting out in his life's work, and whose enthusiasm is refreshing and carries us back to the years gone by when we, too, felt that same hope for the future and that same youthful ardor to be on the firing line. Our young friends of today will be leading our profession tomorrow. I always have a kindly feeling for the young practitioner, for I remember well my own beginning as a doctor. It is a pleasure to meet those who have grown old in the harness, who not only have borne their own burdens, but have helped to make the burdens of others less weighty, have seen much, worked hard, been illy paid, but still cling to the Society. The family physician is not passing away, he will be with us for many long years to come; all honor to him. We also have the pleasure of meeting on these occasions the professors of our State Medical College, the scientists from other states and the citizens of this city.

It is well for us to get together once a year to exchange ideas, take stock and look about for means to benefit ourselves and the communities in which we live. In my judgment the physicians of this state are a greater asset to the state than any other body of men, for we know that we save life, prevent disease, bear the burden of taxation, and uphold the hand of the law.

DISEASE PREVENTION.

By our knowledge in preventing disease and curing those afflicted, we save much expense to the state and individual, as well as relieving many from poverty. At the present time the public is beginning to realize the

*President's address before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1913.

benefits of preventive medicine. They eagerly read what is printed in the newspapers and magazines about the new discoveries in medicine. The more intelligent of the laity consult the latest encyclopedias to find what is said about their complaint, and since this is a fact, it behooves the doctor to be up to date. The laity as well as the doctor is interested in the prevention of disease. They are advocates of pure air, pure water, pure foods and pure drugs. They are in favor of better habitation, medical inspection and care of school children and of those who work in mines and factories; social survey and settlement work; of law enforcement in the matters of white slave traffic and the liquor traffic; in legislation regulating marriage; they are contributing large sums of money for the eradication of tuberculosis, cancer, syphilis, malaria, pellagra, hookworm and other diseases.

At no time in the world's history have there been such universal efforts to stamp out disease and to better living conditions than at the present time. The medical man is the one who wages the battle in the prevention and cure of disease. If sufficient means could be placed under the control of the State Board of Health, this state could derive a thousand times more benefit for its citizens than it does from all the politicians we send to congress and all the politicians we keep at home and place in office. For the use of the State Board of Health the legislature makes a pitiful appropriation and the active members of the State Board of Health scarcely have enough to pay railroad fare to the different counties to which they are called. Who can estimate the value of these services in time of an epidemic? When the people who live in the rural districts and the poor who live in the crowded cities are rescued from sickness and death, who can estimate the value in money for these services?

STATE AID NEEDED.

The law-makers of the state are always ready to hand out large sums of the people's money to some lawyer for legal advice, but for prevention and cure of disease they do not seem to understand the necessity of making an appropriation. The Rockefeller foundation fund has been a great blessing to the helpless poor of our state. The money furnished by this fund employs competent men to cure those afflicted and to instruct the public how to eradicate the hookworm. These noble workers instruct the people in other

health matters. The regulations of the State Board of Health are up to date, and if lived up to, will be an immense benefit to our citizens.

The medical profession is beginning to come into its own. The public is beginning to realize the importance of health measures; they are getting the benefit of medical knowledge of the day. Since physicians are always advocating measures to prevent disease, they are the only class of mankind that I know of who seek to curtail their means of making money.

The purchasing power of money is steadily decreasing, all wages have been advanced. Rents, office supplies, instruments, medicines and everything the doctor uses in his daily work cost more, yet medical fees remain the same as they have been for the past thirty years. In some localities the fees are exceedingly low. With advanced cost of living, we have as competitors the homeopath, the eclectic, osteopath, chiropractor, Christian Science and others which the laws of the land permit to flourish. Contract practice, lodge practice, fee splitting, unqualified practitioners from low-grade medical schools have also to be reckoned with. We should not despair on account of this large army of pretenders, and others, who lower the standard for money. We have seen the advertising quack flourish and grow rich by the aid of printer's ink; he is now a thing of the past. The sale of patent medicine, once so immense, is growing less every day, owing to publicity. So the same way will go the other healers in time, for the people are reading in the public prints about the advance of modern medicine and are being educated to discriminate between the true and the false. We ourselves are somewhat to blame for these pretenders being in our midst. The people nowadays are not satisfied with the "feeling of the pulse—let me see your tongue—and a dose of calomel to be followed with quinin diagnosis." They want to be examined and are willing to pay for it. How can you make a diagnosis unless you make a thorough examination of your patient? It is a fact that many of those who come to us for advice have been sick for years and have passed the curable stage. How much better for the patient and the doctor if a thorough examination had been made at the first consultation. A superficial examination is worthless. It is better to have but a few patients well examined than many patients only superficially examined. The man who selects a competent

physician and goes to this physician every six months or a year for examination is wise. These examinations should inspire the physician to do his best in order to repay the confidence the patient has in his medical advisor.

THE SECRET OF SUCCESS.

It has been my experience that the best diagnostician in a community always has the largest practice. Speaking to my younger hearers, I wish to impress a few facts I have learned about what goes to make a successful physician. It is assumed that he has graduated from a good, reputable medical college; the poor medical colleges are dying out fast. He selects his locality and opens an office. This office is fitted up for his business as well as possible. It should always be clean and attractive. It should have the ordinary instruments for diagnosis, such as stethoscope, urinary analysis outfit, microscope, blood counting outfit, blood pressure apparatus, and other diagnostic instruments. I have observed physicians' offices in such insanitary condition that I was glad to get away from them. Dirty cuspidors, dust on the tables and chairs, floor unswept, windows unclean, old dirty paper on the wall, no place to put your hat or overcoat except in the dust, do not make a favorable impression upon a visitor. What an impression must such a place make on a refined lady? Is there any excuse for a physician in this day and time to inhabit such a place? It pays to be clean and it pays to have a clean, bright office.

The country patient going to the city to consult the city doctor is impressed with the city man's clean office, the methodical way in which he is examined, and feels that he is getting his money's worth, though the city man may be inferior as a diagnostician. Learn early to make a record of your cases. It impresses your patient and you have the satisfaction in knowing that you have gone over your case and have preserved your findings for future reference.

A card index system costs but little. You need not make elaborate notes, but you can place enough to record the "family history," "personal history," "past illness," "present illness," "sex history," "lungs," "heart," "abdomen," "kidney," "blood pressure," to identify your patient when he comes to you again next week or next month or next year. He prefers to come back to you, for has he not seen with his own eyes how you interrogate each organ and make a record of it?

Your patient will go out and say to his friend that you gave him a thorough examination. You have examined, investigated and recorded your findings and your patient sees that you have taken an interest in him and appreciates it. He is willing to pay, for he feels that he has been investigated. You profit, for you become through many examinations skillful in detecting a departure from the normal. It may be that you are unable to make a diagnosis at your first examination; tell your patient so and have him come again. Be honest with your patient and tell him the truth. We all like to deal with the honest grocer or butcher, and so do the people prefer the honest, competent medical man. Honesty pays. Never let your patient go out of your office and say that "he did not seem to take an interest in me, for he hardly examined me at all." Examine thoroughly, make a record of your case, find out the weak places in the human machinery. Have clean hands and clean finger nails, clean linen and well-fitting clothes. The clean heart is always to be present. "So great is the effect of cleanliness upon man," says Rumford, "that it extends even to his moral character; virtue never dwelt long in filth; nor do I believe there ever was a person scrupulously attentive to cleanliness who was a consummate villain."

So also let us be clean toward our fellow-practitioners. Be careful of his reputation. Speak no evil of him. Do not betray his confidence. Be loyal always. It is well to remember that "the only way to make a friend is to be one." Much more could be said about what goes to make a successful physician, but I believe that the essential things are to make a diagnosis. Take an interest in your patient and be clean in habit and heart.

AID EVERY GOOD CAUSE.

You cannot afford to not give your means and endorsement to all things that tend to uplift your community. You cannot afford not to attend your medical society, for by so doing you broaden your education. You reap the benefit by study when you prepare a paper for your society. Then you come in contact with your brother practitioner and become to know him better. It has been my observation that the busy doctor is usually the most constant member in attendance at medical societies. We have members in our local society, very busy men, who, when called upon for a paper, always come forward with something worth hearing. We know that

something good is in store when their names appear on the program. When they are put on a committee we know a good report will be made at the proper time. They do not sit still and refuse to discuss the questions at issue, but promptly rise and give their views. They are doers of things and you always know where to place them when a question arises for the benefit of medical men or of mankind. Money is not everything with them.

As president of this society, I wish to call your attention to a few evils brought about by selfish disregard of the rights of others and which bring reproach upon our profession. Certain forms of contract practice will always be with us—such as for mines, railroads, sawmills, factories, and I can see coming shortly a system of insurance for the working man which will partly pay him for loss of time during his sickness and partly pay his physician for his services, but I cannot see how any self-respecting physician will do lodge practice. I am not going into reasons why lodge practice is demoralizing, for they are well known to all of you; but we have in some localities in this state a form of graft that seems to be spreading. I refer to fee-splitting.

THE FEE-SPLITTING EVIL.

Fee-splitting springs from the desire for money and means a loss of integrity and the sale of honor. It is said that it generally starts in a community by some man who is ambitious to do surgery. This individual makes it his business to become acquainted with the doctors of the city in which he locates, and is diligent in getting acquainted with those living in the small towns adjoining. He is careful to pick out those who do not do surgery and let them know that those who bring cases to him will receive some of the fee. He is so anxious to do surgery that he is willing to receive one-third or one-half of the fee. The man who brings such a man surgical cases salves his conscience by saying to himself that as he assumes the responsibility of bringing the case to the fee-splitter, and if allowed by the fee-splitter to put on a gown and gloves and hold a retractor, he further believes he is earning two-thirds or one-half of the fee. Of course, the trusting patient does not know how much of the fee goes into the pockets of his family physician.

The fee-splitter is careful that the patient is ignorant of the division. The public is beginning to see the evil of fee-splitting, and in

the state of Wisconsin the following bill was passed by the legislature:

“The people of the state of Wisconsin, represented in the senate assembly, do enact as follows:

“Section 1. There is added to the statutes a new section to read: ‘Section 4431-B. 1. Any physician or surgeon who shall claim or demand and collect and receive any money or other thing of value as compensation for his professional services in treating or operating upon a patient who was induced or advised by another physician or surgeon to submit to such treatment or operation, and who shall have previously paid or delivered, or shall thereafter pay or deliver any money or other consideration to such other physician or surgeon or his agent, as compensation for such inducement or advice, shall be guilty of a criminal fraud, and upon conviction thereof shall be punished by a fine of not more than one hundred dollars or by imprisonment in the county jail not exceeding six months. Such conviction shall operate also as an annulment of the license held by the convicted person to practice as such physician or surgeon. 2. Any physician or surgeon, not a citizen of Wisconsin, who shall in any adjoining state treat or operate upon a citizen of Wisconsin, and who shall have previously paid or delivered, or shall thereafter pay or deliver, any money or other thing of value to another physician or surgeon as compensation for inducing or advising such patient to submit to such treatment or operation, or as compensation for assistance in the case, is forbidden to practice medicine or surgery within this state or to participate in this state with other physicians and surgeons in consultation. Every violation of this subsection shall be a misdemeanor punishable by a fine or by imprisonment as prescribed in Subsection 1. 3. All prosecutions under this section shall be in the Circuit Court.’”

Kansas and other states now have the same law. A patient has a right to know to whom his money goes. The Southern Medical Journal in an editorial has this to say of this infamous practice: “Fee-splitting is a subject of vital import to the profession at large. It behooves us to see to it, through our periodicals, our associations, our outspoken opinions and our individual actions, that the rot of this degrading practice be not allowed to infect our ethics and dishonor our calling. We must insist that more than money, doctors need the confidence of trusting families as unreservedly in his hands as into those of God himself.”

DISHONORABLE SECRECY.

Let the family physician make his examination and make his diagnosis and charge for it. If he has to accompany the patient to the surgeon, let him put in a charge for this also; he is entitled to it; but it is not right for him to demand half of the operating fee, nor would the patient submit to it if he knew how his money is to be divided. This the fee-splitter knows, and it becomes a secret trans-

action. Such practices are dishonorable and are condemned by all honest men.

The commonwealth of Arkansas is great in natural resources; she has fertile valleys, wide-spreading plains and beautiful mountains. She is well watered by beautiful rivers; she is endowed by Nature with everything to make her people happy and prosperous. Only a very small portion of her millions of acres are cultivated. She can and will in years to come, support many millions of people. She can now do many things which are needed to be done, but which are not done, for the comfort and care of her unfortunate citizens.

We are all witnesses to what has been done of late years for the State Insane Asylum under the efficient administration of Dr. J. L. Greene, who not only placed this institution on a scientific basis, but by wise and economical management added more buildings for the care of these unfortunates who had been previously confined in county jails without proper care and treatment. A member of this society, the late Dr. J. S. Shibly, by his untiring efforts brought into existence the State Tuberculosis Sanatorium. It is not necessary for me to say to you what incalculable good this institution has done since its existence. It must be enlarged and have more financial support.

WORK TO BE DONE.

We must do more, for in this great state there is no place for the feeble-minded and the epileptic. These unfortunates are allowed to exist in their communities and propagate their kind. It is known to all of you how rapidly these people bear children, who in time become a charge upon the public. It is a sad fact that our women do not wish to bear children and that the professional abortionist is found in all communities. The unfit, the degenerate and the irresponsible are permitted to run loose; they are prolific and are increasing in numbers. So, for our protection, we must have a home for their proper care and to prevent the propagation of these people. An institution for the feeble-minded can be made to be self-supporting. These people can be taught many useful things to do and be made self-supporting, so that they will not be a burden to the state. It is estimated that there are in this state at least 1,000 of these unfortunates. Many are now confined in the State Asylum, where it is impossible to keep alive the spark of intelligence

they possess, but are allowed to live the life of animal existence there. The State Insane Asylum is no place for them and it is a shame and a disgrace to our civilization to keep them there.

We will have, as soon as can be constructed, a State General Hospital for the indigent poor of this state. It is well that this institution be located in Little Rock for the reason of its central location and for the benefit such an institution would be to the Medical Department of the State University. A free institution for the indigent poor is a great saving to the state, for any poor person, cured of his or her infirmity, would cease to be a burden to his or her community and become self-supporting. The rich man can command the best talent in the state, and, if not satisfied, he is able to go away for advice. The sick man who is poor has to get what he can, and in the majority of instances does not get what he is entitled to as a human being. Teamwork by experts at a general hospital would give these unfortunates what they are entitled to have. A sick poor person is a tax and burden to every living soul in the state. Make this man well and he becomes a producer and a burden-bearer instead of a burden to others. How can these needful measures be brought about? By electing wise and honest men to office. By killing the damned politician and grafter with the ballot; by not having so many state elections; by economy with the state's money; by proper assessment of personal property and real estate. The small land owner and home owner cannot escape, but the large land owner and money lender gets by without any trouble. Perhaps if our learned political judges should order our grand juries to look into the assessment of some of our pious friends and others, the state would have more money for the State University and our benevolent institutions.

ADVANCE IN MEDICAL SCIENCE.

Looking backward, we can see what marvelous strides have been made by medicine and surgery in the last thirty years. The improved surgical technique and the up-to-date operating room makes it possible for the surgeon to do wonders. Our fathers in their day could only stand by and watch many unfortunate sufferers go to their grave; today these victims are saved by timely operation. Diseases such as yellow fever, cholera and the plague, which tied up commerce and destroyed

thousands of victims, we do not fear. Malaria, typhoid, diphtheria, tuberculosis, cerebrospinal meningitis, poliomyelitis and acute infectious diseases are controlled by modern medicine, quarantine and sanitation. Thousands of infants are saved by modern methods of care. Child-bed fever is almost unknown. Ophthalmia neonatorum is rarely seen.

This is the day of prevention; of safety first. Today we are performing many operations, but as we progress in knowledge of the causation of disease and the prevention of infection, we will in the years to come save thousands and thousands from the knife. The next thirty years will also bring about improved methods in the cure of disease. The progress in medicine and surgery will be as wonderful as the past thirty years have been. We, as a profession, can truthfully claim the title of benefactor.

Our profession is a noble calling. It requires many sacrifices. We are often blamed when we should be praised. We are often praised when we should be blamed. We must always maintain the dignity of our profession. We must remember to keep inviolate whatever is told us by our confiding patients. Money is not everything in the practice of medicine, and God help the man and God help the patients of the man who puts money first. We should remember

"I shall pass through this world but once.

Any good thing that I can do, therefore,

Or any kindness I can show to any human being,
Let me do it now. Let me not defer nor neglect it,
For I shall not pass this way again."

I thank you for your kind attention, and in conclusion will say that my best wishes are with the Arkansas Medical Society. A fine program awaits you, and I trust that you will be entertained and instructed.

THE GREEN FLY (LUCILIA CAESAR) AS THE UNIVERSAL DESTROYER OF MOTOR FUNCTION AND OF LIFE.*

By E. W. Saunders, M. D.,
St. Louis.

This insect is found from Alaska to the tropics, and I believe as abundantly in the southern hemisphere as in the northern. Its habits might be taken to indicate that it was originally a fish fly, living along the streams

and shores, and that it had migrated from the wilds to the neighborhood of human habitations. It will not remain in the house during the summer weather, but seeks to make its escape so soon as it has deposited its eggs upon or in the neighborhood of some organic material, preferably fish, cabbage or meat. It is extremely hardy, resisting the cold far better than the house fly, and its larvae are exceedingly active and resistant to adverse influences. We found it very difficult to breed in captivity, where it would either beat itself to death against the side of the cage, or else mope. However, we finally succeeded in breeding satisfactorily by introducing leafy shade into the fly house, and a pig, and abundance of water. It has an especial affinity for the poultry yard and the pig pen. At the approach of cold weather it seeks human habitations, and remains in concealment throughout the winter, but will come out and deposit its ova (or larvae) on a mild sunny day. I have found them active in my house every month during the winter. Entomologists have debated the question as to whether it is oviparous or viviparous, but it is both. The hibernating female in the spring or late winter months, deposits motile larvae, whilst in summer it deposits the ova, which in a few hours begin to crawl. This is not an academic question, but one fraught with the greatest epidemiological consequences. The hibernating fly may be crushed, but immediately 120 vigorous larvae begin to migrate in search of food, and of course they usually find human food in the pantry or kitchen.

In the early days of my researches I was almost turned back by finding both in practice and in literature so many cases of poliomyelitis occurring in the cold months, but further acquaintance with the habits of the green fly has relieved my mind on that score. My theory is briefly this: that human poliomyelitis, as met with in our part of the world at least, is in the vast majority of cases due to the accidental ingestion of toxivirulent green fly larvae. Undoubtedly there are several toxins which are capable of producing motor paralysis and death in vertebrate animals and man. The botulism toxin has been thoroughly studied and its effects known for some years. Our toxin is not identical with this however, as shown by the fact that the dog is absolutely resistant to the botulism toxin, but is exceedingly susceptible to the green fly toxin. The old sup-

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position that putrefactive alkaloids were capable of producing paralytic death has not been substantiated. The sheep tick of the Northwest seems to possess a zootoxin which is capable of producing motor paralysis, as reported by many observers in Todd's admirable monograph on the subject. The removal of the tick is followed by rapid recovery of the patient, showing an inhibitory effect upon motor function, rather than a destructive lesion in the central or peripheral nervous system. The "Drop Head" as reported by Couchoud and Gerlier, which occurs endemically in the rural districts of northern Japan and eastern France, seems to be somewhat analagous to the tick paralysis, and is ascribed to an influence in some way emanating from domestic animals, probably through a parasitic host. A coccus has been found in the spinal fluid. The Green Fly Epizootic, as I have formulated the theory of its working, is propagated as follows: The female insect feeds upon the carcass of a victim, upon its excretions (or the excretions of a case of poliomyelitis), and becomes potentially infected. After three days the ova deposited are toxivirulent. It deposits its ova or larvae upon human food, animal food, or the mucous membrane of a living animal. The creature that receives these toxivirulent larvae, within a few hours, or certainly within a few days, becomes the subject of motor paralysis, probably respiratory paralysis and death. Monkeys alone, amongst all animals experimented upon by us, develop the symptoms of a regular acute infection, in the few cases which survive several days. A large rabbit died within two hours after receiving a filtered emulsion of larvae in the spinal canal, a chicken within six hours after swallowing three larvae.

If our observations and experiments had been confined to every species of reptile, birds and quadrupeds, excluding the monkey, I would have been obliged to say that our green fly epizootic was a noninoculable disease, and required the intervention of the green fly host in every single instance of transmission from one animal to another; but the monkey seems to possess in its cerebrospinal system a hospitable home for the green fly larvae, which serves instead of the green fly host as a medium for full development.

I would ask any scientist if it is likely that an agency which is capable of paralyzing every living thing experimented upon by us,

will be innocuous to the child who has been so unfortunate as to swallow one of these horrible flies? It seems a self-evident proposition that a human being would not be immune to such a toxin.

It is evident that the green fly host serves to develop a microbial toxin which is capable of destroying any living creature, but that in all animals, except the monkey (inferentially man also), the virus cannot reach its maturity or develop its toxin.

We now proceed to the discussion of the epidemiology of poliomyelitis, after the citation of a few facts gathered in our collective investigations and reading. Some of these were given in the first or second papers published in 1913 and 1914. In 1890 multitudes of sheep perished under the snow in the Northwest. When warm weather came and the carcasses began to attract the buzzards, they came in thousands and remained for a long time, feeding upon the unlimited supply of carrion. A lady living upon a ranch, observed that these scavengers began to die in great numbers, so that each group of carcasses was surrounded by a large circle of dead buzzards. She saw them become paralyzed and die, just as she had seen limber-neck chickens often before. Near Corning, this state, Dr. Black tells me that the hogs have been almost exterminated during the last two years, and that the buzzards have been dying also, so that their numbers have been greatly reduced. There is a large buzzard roost in the county, and the ground is covered with the bones of the birds which have fallen dead from the trees. In 1912 fifty-nine mules were killed on a plantation near Morgan City by the falling of the stables in a windstorm. The carcasses were skinned and deposited on the edge of the bayou. In a short time the ground was covered with dead opossums, which had been devouring the carrion. One observer told me that the opossums became very scarce after this event. Poliomyelitis and limber-neck had been prevalent in that vicinity for several years. A young physician was hunting in the Ozarks, and came across a large wild boar paralyzed in the hindquarters, very close to the carcass of a sheep which had been killed by wolves—fly-blown, of course, and partly devoured by the hog. He was told by mountaineers that such occurrences were frequent in that region. Near Dongola Station, southern Illinois, the farmers were los-

ing their hogs, which died by the thousand, and poliomyelitis was more or less prevalent. One correspondent wrote he had eighty-three hogs; eighty died suddenly, one remained well, and two survived with paralyzed hind-quarters. About this time a gentleman in the vicinity ventured to buy up all the sound hogs that he could find in the neighborhood, a earload full. He shipped them promptly to the Chicago stockyards. They were all fat and apparently in good health when they left. When they reached the stockyards there was only one live hog in the ear. Not only did the poor fellow lose all his money, but narrowly escaped indictment by the federal authorities, in as much as they contended that he must have known that the animals were diseased when he shipped them, as hog cholera requires a period of several days incubation, and the hogs had been collected from the various farms, and therefore could not have all been infected at the same time. The green fly epizootic, which kills within a few hours, offers the only explanation of this otherwise inexplicable occurrence.

A pack of hounds apparently in good health began the chase on a day in early autumn, and within half an hour half of them were paralyzed. They had been devouring the carcasses of limber-neck fowls, a few hours before. Citing a few of the facts derived from the voluminous literature on this subject, we find that Pierson, surgeon in the U. S. army, reported a paralytic epizootic among the dogs in an Alaskan fishing village, coincidently with some cases of poliomyelitis in man. A native who visited the village, and returned to her home next day, was stricken with the disease. Many observers in Europe, North and South America have reported a coincidental or sequential relation between a paralytic epizootic amongst domestic animals, and poliomyelitis. Frauenthal and Manning report 24,000 horses dying of "Paralytic Meningitis" during the poliomyelitis epidemic in Kansas in 1912. (Was it Borna's disease?) They also report a thousand horses and 4,000 cattle dying during the poliomyelitis epidemic in and about Santa Paula, Brazil.

I cite these facts merely to establish the generally accepted relationship between a paralytic epizootic amongst various species of animals, and poliomyelitis. Many observers and writers are willing to concede a connection between the two. Others, as Flexner, repu-

diate the idea. Some think it possible that poliomyelitis in man gives rise to paralytic epizootic in animals. The green fly furnishes the only possible solution of this much vexed question. Those who maintain that poliomyelitis is strictly a human disease, find it impossible to correlate and explain all the epidemiological facts. Some of the best authorities, as Wickman, would inculcate the schools as centers for spreading the disease, and the authorities in California two years ago forbade the assembling of more than five children in one place. But this supposition is contrary to the generally acknowledged fact that poliomyelitis in the vast majority of reported prevalences, reaches its acme in the mid-summer months—that is, during vacation—and even in other months the well-known fact that children are the chief subjects of the disease should be taken into consideration. There is undoubtedly a grouping of cases in every epidemic, but this grouping reminds us very forcibly of that found in tracing an epidemic of malaria, or of yellow fever, strictly insect-borne diseases. Until a few years ago, when epidemics of poliomyelitis were first known and studied, no one in the profession or out of it, had thought of isolating a case occurring in the family or even in the orphan asylum. Innumerable instances occurred in the old days of a single case in the midst of a large family, or of several hundred children in an asylum, with no precaution taken, and no second case. Two such have occurred in the Bethesda Foundling Asylum within twenty-six years. One such in the large orphan asylum in Seattle during the epidemic in 1910. To explain such facts the theorists of today invoke the mediation of cryptic carriers—obsolete cases, immune breeders, and incomplete cases. There are but few facts, however, upon which to base the theory, and a vast number to prove that this is not at least the usual mode of transmission, though it has undoubtedly occurred. The analogy of epidemic spinal meningitis breaks down at every point. This disease, like every other one of proved ochletic* transmission, is most prevalent and most deadly during the winter months, and the coldest weather, whilst exactly the opposite, is true of poliomyelitis. There are some indisputable facts established by the Swedish government investigators and those of the Roekel-

*This word is used in the sense of the old writers, to signify close association, without actual contact.

ler Institute and by Osgood and Lucas, which demand the admission that man may become the carrier to man through his own nasal or other secretions. The experiment of Wernstedt, who took the handkerchief used by a poliomyelitis patient, macerated it, and injected the infiltrate into a monkey, producing the disease, establishes the fact of such transmission. And moreover, the instance cited amongst others, of the man living in the north of Sweden, who returned from Stockholm in mid-winter and produced a house epidemic, would seem to be conclusive proof. On the other hand, we are confronted with the extreme rarity of such instances, and with innumerable instances of failure to spread under the most favoring conditions, from man to man. If we study carefully the laboratory experiments with monkeys, and accept them as furnishing a potent analogy, we find the further fact abundantly demonstrated that Simian poliomyelitis is transferred only by inoculation, and that under the most exacting conditions. Ordinary peripheral inoculation will not succeed, but injection of the virus into the central nervous system, or into a large peripheral nerve, or the peritoneal cavity, or the nasal mucosa, is almost necessary. Rosenau, and later, Anderson and Frost, were able to inoculate a monkey through the medium of a biting fly, but this must be exceptional, as large numbers of other experimenters have failed utterly to repeat the experiment successfully. Not only so, but all observers except Levaditi and Petrusco, and they in one experiment only, have failed to effect the transmission of the disease from sick monkey to well monkey, kept in closest association for a long time. We are dealing with a virus which, like that of rabies, is not of human but of animal origin; one which finds in the monkey (and in man?) a secondary breeding place; one which is inoculable like rabies, but unlike it, with extreme difficulty. Thus, then, the facts of the laboratory concerning Simian poliomyelitis, the facts gathered by epidemiologists in homes and in asylums, are against the assumption of easy transmission of infantile paralysis from human to human.

Proceeding to a study of the reports, most painstaking and exhaustive, by the Swedish observers, and the Washington authorities, and the authorities of the various states, we are met by the same class of facts. Frost reports, in and in the vicinity of Cincinnati,

ninety-eight cases occurring in ninety-seven different families. These families having in but few instances any intercourse with each other. They represented 245 persons. The reports of the Washington State, Kansas and Iowa epidemic are of the same tenor. In the great epidemics of Vienna and of New York, the reporters were unable to produce any conclusive proof of oedematous transmission. Some writers have taken the view that any of the acute infections may produce permanent flaccid paralysis in children, and they seem to have strong proof of the truth of this contention. But the recent discovery that the poliomyelitis virus may remain latent for a long time in the human system, and be lighted into destructive activity by the occurrence of any acute disease, may rob these authors of final proof of their position. Lastly, I would take up the class of cases which to my own mind are the most difficult of explanation, if I should assume, which I am by no means prepared to do, that all cases of poliomyelitis are referable directly to the green fly epizootic, and that none is inoculated, and I use the word advisedly, from one human mucous membrane to another. These are the cases reported by the Swedish and the Rockefeller men, as occurring in mid-winter. Meisenbach, in a previously published article, reports the following instance. A child after a short stormy illness showed symptoms of paralysis. The other members of the family were taken violently ill with choleraic symptoms, but showed no paralysis; whilst a pet crow which was fed upon crackers taken from the same box which the family had eaten of, and to which they attributed their illness, died within a few hours. At the outset of this discussion we showed that the green fly becomes normally the inhabitant of human houses during the colder months, and deposits its living progeny upon human food, preferably when it is sufficiently warm to become active. Not only so, but our experiments in the Bethesda laboratory have shown that the toxivirus of the larvae remains active for a number of months; and any package of food which has been rendered dangerous by a deposit of larvae during the warm months may remain so during the winter. It is possible, therefore, that the father of the family living in rural Sweden, who visited Stockholm during the winter, and brought the disease to his family, may have done so by importing a package of food in-

fected with toxivirulent larvae. During the summer months the green fly will accompany cattle or horses any distance, and thus transfer the disease, like the yellow fever, or the malarial mosquito. To demonstrate the activity of the infected green fly in mid-winter, I would cite an instance recently reported by Wisdom as occurring in southern Arkansas. On the 6th of February, after several warm days, a dog was paralyzed in its hindquarters after eating some heads of game which had been thrown out in the yard. A limber-neck chicken was found in the yard at the same time. A hibernating infected green fly had evidently deposited its eggs upon the food of the animals.

A dog was paralyzed in its hindquarters and killed. The servant entrusted with the task of burying the carcass put a little earth over it. Within a couple of days the neighbor's chickens began dying off rapidly of limber-neck. Suspecting the cause, he found the carcass and destroyed it, but the green flies had become largely infected, and shortly after two fine calves were paralyzed and a cow was paralyzed and died. The carcass was skinned and left for the hogs to devour. Within twenty-four hours all the hogs were paralyzed in their hindquarters. This is no isolated incident, but could be paralleled by numerous similar occurrences reported from all parts of the country.

In conclusion, I will affirm that with the aid of my able collaborators, Meisenbach, Wisdom, White, Hoffman, and others, I have succeeded in demonstrating the existence of the green fly epizootic, affecting many species of cold-blooded animals, birds and quadrupeds, propagated chiefly through the ingestion of the green fly maggot, or its deposition in the nose, or any other orifice of the body, and I call upon the medical profession to say what would happen to the human being who is so unfortunate as to receive these toxivirulent larval flies. I hope that this society will take such action that the green fly menace to domestic animals and to human beings will be met by prompt measures in this state. In a previous paper I have indicated such measures in regard to the human being. To save the loss in the United States of something like \$90,000,000 in the hog industry alone, it is necessary to combat the green fly on the farm. Fortunately, this is most practical. If carrion is not available to the fly, it deposits in the nostrils of animals, or upon their food,

and even upon fruit, berries, tomatoes, etc. As long as fish or any putrefying flesh or cabbage is kept within reach of the green fly, it will not molest the nostrils or other orifices of animals, or their food supply. The Agricultural Department has instructed the farmer how to destroy all maggots in manure or in garbage or in carrion. The material should be placed over water, into which maggots drop as soon as they begin to migrate toward the earth. The adult flies can be trapped so that they will never get away after depositing their eggs, and lastly, they or their maggots may be poisoned. Military science teaches the first rule of warfare is to destroy your enemy in his home; the second is to divert him from his attack upon you and yours. Both of these rules are met in this manner.

Buzzard and Crow (Lynch, Last of Swine)—Must be destroyed, as they are the carriers of infection. "Loupin Ill," Polio of Sheep (McGowan and Rettie): "Inasmuch as it is of the greatest importance to ascertain the habitat of the organism of polio outside of the human body, great interest attaches to any observations which tend to show the existence of this infection in animals."—Patrick and Bassae.

The symptoms and the pathology are most suggestive of relationship to human polio. The seasonal incidence is not given, but if it be in the fly season, there is the strongest probability that we are dealing with the L. Caesar. The fact that the reporters established the existence of an acute neurotropic infection (not meningitic), resulting in permanent paralysis, and that cultures and inoculations were negative, point to the only known morbid agency capable of producing such phenomena.

Borna's Disease (Patrick and Bassae): "Marked resemblance to epidemic polio in man." "The resemblance of this disease to epidemic meningitis in man is only a clinical one, while the pathology quite closely resembles that of polio, with the difference that the chief localization is in the brain, beginning at the olfactory lobe."

Roemer says: "The evidence obtained from experimental work all points in the opposite direction (disproves any relationship between polio in man and the acute paralytic diseases of animals). It would be of scientific interest to determine in what relation the active agent of Borna's disease in horses stands toward the virus of polio in man, because of the extraordinary similarity, not to say identity, of the microscopical lesions in the two cases."

Contagiousness, quoting from Roemer: "In many villages only one case occurred." "Muller was able to find cases in which the infection was brought by healthy carriers and could have been brought in no other way (except by the accompanying green fly?)." "Direct transmission by the patient was more rare, a fact which had been observed by Wickman."

[Surely, a theory of transmission must be faulty, which involves such improbabilities as this.]

From Roemer: "Zappert, in Austria, is very reserved in his opinion on the contagiousness of the disease. * * * Occasionally he saw more than one case in the same family; but he was quite unable to trace any connection between the different cases."

"No proofs of the contagiousness of the disease could be obtained in the great epidemic in New York in 1907, nor in the epidemic in Steinarmark, nor in that in Pomerania."

The wild ducks of North America are in danger of extermination unless something is done to check the ravages of the green fly among them.

The theory of the existence of a virus in a harmless state in one organism, and in a toxigenic state in another, is not without precedent in nosobiology, as exemplified in the following instances:

Rabbit—As a reservoir of the virus of polio, while retaining its health, or if dying by convulsions, showing none of the histologic lesions.

Malta Goat—Healthy, yet harboring the virus of Malta fever.

Antelope—Healthy, yet harboring the trypanosome of sleeping sickness; capable of infecting the insect host.

DISCUSSION.

Dr. Wisdom (DeQueen): I have prepared a supplemental paper, which I shall submit for your consideration.

Dr. Saunders wrote me of his theory during the epidemic of poliomyelitis which we had in our country during the spring and summer of 1913. The theory appealed to me, and at the request of Dr. Saunders to procure material to further his investigations, I began a search for limber-neck fowls. Some difficulty was experienced in the beginning of my search, to find fowls infected with this disease, on account of it being practically unknown in my community prior to the advent of the epidemic of poliomyelitis. As soon as I simplified my query and inserted an advertisement in the local paper offering a liberal reward for infected chickens, I was soon submerged with limber-neck carcasses. Typical limber-neck was invariably found on the premises of or in the immediate vicinity of poliomyelitis. The epidemic of paralysis among fowls, hogs and dogs was most convincing. Some few horses were also affected. One farmer lost twenty-five hogs from a pen of thirty-five, all the young shoats and pigs dying, the older hogs recovering.

In a letter of September 4, 1913, Dr. John J. Sippy, epidemiologist to the Kansas State Board of Health, states: "In the epidemic which is occurring in this state, I have checked up all cases very closely, and find that in several instances the paralysis of animals in the immediate locality has been decidedly marked. In Butler, Atchison and Conley counties large numbers of limber-neck chickens have been reported."

In an adjacent yard to two cases of poliomy and in the vicinity of three other cases, I discovered several chickens down with limber-neck. On opening the craws of these chickens they were found filled with larvae, some of which were used in the experiments in St. Louis, and were still toxic.

In our experiments in the infected zone, paralysis in various forms has been produced, from fatal paralysis or limber-neck to a residual paralysis in one foot. Residual paralysis was produced in a broiler by feeding flies captured in the near vicinity of a case of poliomyelitis.

Very little difficulty was experienced in convicting the lucilla caesar of killing and crippling so many of our children. We simply grew the fly from some very toxic larvae, and in turn grew larvae from the fly, which also proved to be toxic. This fly is a small, iridescent green fly, mingled with a golden or copper hue. About the size of an ordinary house fly or stable fly, though much swifter on the wing, it can fly stubbornly and apparently knows little of fatigue. It has six legs, two very stout wings, two

compound eyes that it never closes, and a proboscis with which it never bites. The life of this fly is not definitely known, nor is that of any other fly. The house fly is supposed to live three or four weeks, but has been known to live much longer. We think this fly lives much longer than the house fly, as it is harder and does not have as many enemies, and is seldom or never killed by fungi. The metamorphosis of this fly is the same as that of the house fly, but perhaps requiring less time for the various changes. The mother fly deposits an ovum, or egg, which is converted into a larva or maggot, which in turn is converted into a puparium or shell, from which the adult fly emerges. My belief is that it is oviparous at one time and viviparous at another. The length of time required for these various changes depends upon the temperature and the medium in which the larvae are deposited. Under favorable conditions eggs will hatch within four or five hours, or may be delayed for some time under unfavorable conditions.

The larva or maggot period lasts about five days usually, but this stage may be prolonged in cold weather for ten or twelve days. It usually requires twelve to fourteen days to complete the metamorphosis.

The maternal instinct of the green fly is most wonderful and seems to be much greater than that of the house fly. She is exceedingly bold in her search for food or a suitable place to deposit her eggs, and will explore the nasal or oral cavity of a sleeping child, or enter seemingly inaccessible places. A package containing suitable food for the larvae, no matter how securely wrapped in paper, is not safe from being devoured by these little gluttons. The mother fly herself will follow the folds of the paper as far as possible and then deposit her eggs, leaving the remaining obstructions to be overcome by the boring propensities of the maggot. The female fly has been known to deposit her eggs on outside of screen when suitable food for the larvae is placed in the window.

The eggs of the green fly are not as easily destroyed and the larvae are much harder and more active than those of the house fly. Larvae have been known to reappear on the surface when covered with four feet of earth. So you can readily perceive how useless it is to bury carcasses of animals after the fly has deposited eggs upon them.

The pregnant female green fly is the hibernating fly, and has been observed indoors in well-heated houses during every winter month. The green fly is the last fly to hibernate and the first to reappear in the spring.

Edward H. Ross, in his book on the "Reduction of Domestic Flies," states: "There are certain questions concerning the life history of these insects which require elucidation. It is most important that the normal length of life of both male and female flies should be discovered. It is also most important that the time of occurrence of sexual maturity and mating should be learned. Much depends upon these points."

"Once the exact details of the natural lives of flies are fully known, the problem of fly reduction should be much simplified."

"Research is required, but research is a costly thing, requiring much patience and persistent attention to little observations and details."

"Information concerning flies, however, would well repay the cost of research, for the results would be improved health. In all probability it will be discovered that flies live much longer than is generally believed, and that cage experiments are misleading."

Dr. Thibault (Scott): I believe that Dr. Saunders has done good work so far as his experimental efforts go, but I think he has done himself and the medical profession an injustice in formulating any theory based on that work. The paper is very long and could not be properly discussed without having a

table and a stenographer and having it read over two or three times; but his theoretical inferences, like all other medical theories, are decidedly out of place in this day of experimental medicine. He should have written and published nothing except what he had found to be true by actual experimentation. In order to prove his theory, he gives us a number of examples that are diametrically opposed to one another. In one place he proves the absolute correctness of his theory by finding a dog dead by the side of the carcass of a fowl presumed to have died of limber-neck, and in another place he uses the presence of the carcass as the sole protection of animals from this same disease that he has assumed killed the dog. He finds a hog paralyzed in his hind limbs, and in the same woods finds a carcass; and because he is trying to prove a theory instead of investigating, he assumes that the paralysis in this hog is due to his having eaten some of this carcass, and that the carcass contained toxivirulent larvae, and that these larvae were toxivirulent because they had lived in the carcass of a fowl dead of limber-neck. With more certainty of being right, I would assume that this hog had been hit on the spine with a club. Because some children became sick after eating some crackers from a certain box, and a pet crow which had also eaten some of these crackers died, by assuming the absolute correctness of his theory, he states that these crackers contained the ova or larvae of the green fly, though they could not be found by inspection. The dogs and hogs which died after being found sick in the presence of carcasses of chickens that he assumes died of limber-neck; finally, his example of the pig kept in the fly house and absolutely protected from the disease by the presence of the carcass of the bird that had died of limber-neck, because the flies had deposited their ova in this carcass instead of the nose of the pig, to his mind proves the absolute correctness of his theory. He has accepted the observations of too many men in too many different places for us to attach any value to many of the examples that he recites. Every man that has tried to collect any biological data knows how valueless are the observations of the average unskilled observer. Time and again I have had men of more than average intelligence to tell me that anopheles were abundant in a certain place, and when I went to get them I found only crane flies that had been mistaken for mosquitoes. You cannot depend on the observations of these unskilled men, earnest men who are looking for a theoretical poison and are determined to find it. Again, I say that Dr. Saunders deserves credit for the real work that he has done, but any man that formulates any medical theory or a theory of the etiology of poliomyelitis or of any other disease, is doing himself and the medical profession an injustice.

There are half a dozen plausible theories as to the etiology of pellagra, but the moment we accept one of them as being correct, we cease to investigate. When we accept a theory it simply means that we have stopped the clock of progress along that particular line of investigation. It seems to me that the humiliating experience of the medical profession with the etiology of malaria would deter any doctor from ever again advancing any theory of the cause of disease. For years we ceased to study the etiology of malaria because we accepted the miasmatic theory. It was sufficient. It soothed our minds and we ceased to worry any more about the cause of malaria, but applied this theory according to the lights before us. We had a rude awakening, however, because there was one man who would not accept that theory, but applied himself diligently to the study that finally revealed the real cause of malaria.

If we accept the theory formulated by the essayist as to the transmission of poliomyelitis by toxivirulent larvae of the green fly, we will stop studying the question and rest on our oars. If, on the other hand, we accept only that which he has proven true by experiment, and frankly acknowledge our ignorance of the mode of transmission of poliomyelitis, the question will remain open to study and every man capable of investigating it will feel at liberty to try his hand on it.

Dr. Foltz (Fort Smith): I would like to ask if he fed these toxivirulent ova to the hog, and if it produced any paralysis?

Dr. Saunders (Essayist): With reference to these experiments, I did not go into details of our experiments with the hogs, because that would be repeating the work, which was reported in our publication of last year. Since that time we have conducted a number of experiments and I have not reported these. There were no post mortems made in the cases of the hogs; the symptoms of paralysis of the hindquarters were observed in one of the cases.

Now in reply to Dr. Thibault: I must confess that my scientific and philosophic education was completed at a time when the diets of modern science did not preclude theory. Forty years ago we were taught that induction went on two legs; one was experimentation and the other observation. Nowadays induction walks on one leg. Nothing that does not emanate from the laboratory has any influence whatever. I am not saying this in a personal way at all; but I want to protest. I have for years thought that the laboratory men have appropriated too much to themselves. They listen to nothing from the field of observation—nothing whatever. Now, gentlemen, that is absolutely wrong. It practically makes the laboratory man the only credible epidemiologist.

My work and the results given are based on absolute facts, followed out by experimentation, but not followed out to absolute confirmation in every particular. I admit that one observation is not equivalent to one experimentation, but I maintain that a large number of observations, all tending to the same conclusion, have all the compelling force of the most exact experimentation.

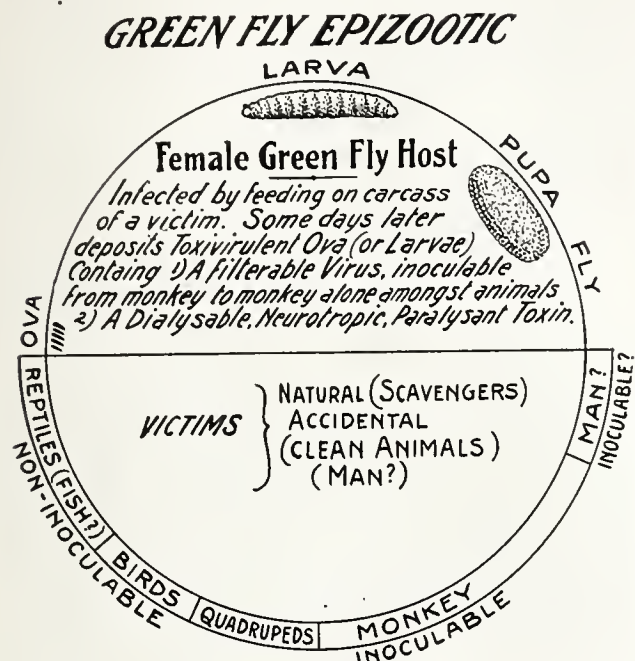
When I was at the university we were taught that a working theory was necessary generally for scientific progress; now forsooth the youth are told that it is a hindrance.

Now, this is not a personal matter; but I have evidently developed opposition in some directions. I have formulated and promulgated a working theory, and I challenge every man whose look is forward, and who desires to assist in proving or disproving it, to take my working theory, and undertake a most thorough and painstaking investigation. I am willing to bear a reasonable amount of blame and criticism. I have risked my whole scientific reputation on this theory, and I am not afraid to stand by it now.

In conclusion Dr. Saunders said that he believed babies were paralyzed by being nursed by mothers in the open, outside of mosquito bars. The fly deposited on the nipple of the mother in the summer time while nursing, likewise upon the rubber nipple of the bottle. Investigations in Southern Illinois, Arkansas, Kansas and the far Southwest showed that where hogs were perishing in large numbers, he believed that not more than one hundred hogs in a thousand died of cholera; the rest of the losses were largely due to the green fly. In cholera the progress is slow; very seldom do they die under several days. They live long enough to become extremely emaciated, whereas in the green fly infection the hogs ap-

pear perfectly well at sundown, and next morning are lying dead on the ground. If the old sow survives, it is because she is more resistant; and her hindquarters are paralyzed.

On motion a rising vote of thanks was tendered to Dr. Saunders and Dr. Wisdom for their report of research work given to the society.



(Note.)—First. The presence of the green fly. In cold months it may be active on warm days, or in the warmth of the dwelling house, or around the manure pile.

Second. Death occurs often in so short a period of time that incubation of a virus is excluded.

Third. Residual muscle group paralysis, where the animal survives any length of time.

Fourth. Death is by respiratory paralysis invariably.

Fifth. Noninoculability of the virus, from animal to animal, in the case of every species except the monkey.

Sixth. The propagation of the epizootic, by means of a latent virus found in every victim of the green fly, and demonstrated only by the infection of green flies feeding upon the carcass. There is a modified hospitality, nontoxigenic, afforded to the latent virus by infected animals, which do not afford material for successful reinoculation; however, we have made but few experiments bearing on this point.

Seventh. The participation, on a large scale, of insectivorous and ptomaphagous birds and quadrupeds in the destructive effects of the green fly epizootic, wherever it prevails.

Eighth. The occurrence of sporadic poliomyelitis.

Ninth. The occurrence of epidemic poliomyelitis at the height of the fly season, usually beginning subsequently to the first epizootic manifestations.

Tenth. Whilst there may be a suspicion of meningitis during life, pathologically there is no evidence of it; and, on the other hand, the findings more or less approximate those of poliomyelitis.

These conclusions are derived from three sources: Collective investigation, literature, and experimentation.

Flexner's latest publication in "The American Journal of Pediatrics" hardly does justice to the facts in regard to the transmission of poliomyelitis.

Resonau, Anderson and Frost certainly succeeded in transmitting poliomyelitis by the bite of the stomoxys.

The great number of failures to repeat these experiments cannot invalidate the original facts, but may be explainable, possibly, on one of the following grounds: The absence of the virus from the peripheral circulation of the sick monkey; second, the well-known difficulty in securing successful inoculation simply by peripheral injection; third, the possibility that a pregnant female fly may be necessary as a host of the virus. In other words, it is not simply an inoculation, but the intervention of an insect host.

Whilst Swedish, Austrian and American experimenters have abundantly proven the presence of the virus in the mucous secretions of recovered cases and of eryptic cases, there is but a single indubitable fact pointing to the oehletic transmission of the infection by a diseased monkey to a healthy one, kept in close association. The possibility of a hibernating green fly acting as the host is not absolutely excluded in this case. On the other hand, we have a vast accumulation of evidence from all over the world to show that one case of poliomyelitis is not generally followed by a second, in the immediate family, or asylum, or hospital, as the case may be. Not only is this so, but the disease is usually rural in its origin; and both in Sweden and in our Northwest country, it originated often in the most remote farmhouses and hamlets, where the disease had never been heard of before.

The inference derivable from the occurrence of multiple cases of poliomyelitis in a family or a community, as to the personal transmission of the disease, is very considerably vitiated by the failure to note the length of time elapsing between the onset of the cases. In conclusion, I would urge that the theory of the ordinary transmission of poliomyelitis by eryptic human carriers is purely an assumption not borne out by the facts of epidemiology, or the experience with the same disease in monkeys; whilst the Green Fly Epizootic offers the most satisfying explanation of the occurrence of this admittedly mysterious malady.

VENARSEN.—The Council on Pharmacy and Chemistry reports that while formerly Venarsen was marketed with indefinite statements as to its identity, and in a way to suggest analogy with salvarsan, it is now admitted to be essentially a sodium cacodylate solution, each ampule containing about 9 grains sodium cacodylate, 1-10 grain mercuric iodid and 3-4 grain sodium iodid. The Council finds the therapeutic claims made for Venarsen to be exaggerated and unwarranted, and holds the administration of sodium cacodylate and mercuric iodid in fixed proportions intravenously to be an irrational procedure (Journal A. M. A., May 22, 1915, p. 1780).

THE JOURNAL

OF THE

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DR. WILLIAM E. BATHURST, Editor.

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Notice of deaths, removals from the state, changes of
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Anonymous communications will not appear in the col-
umns of this Journal, no matter how meritorious they
may be.

Editorials.

OUR PRESIDENT'S ADDRESS.

In the annual address of Dr. St. Cloud Cooper, our retiring president, delivered before the state meeting of the Medical Society last month, there will be found live questions which should engage the attention of every physician in the state. Matters of very special importance to the beginner in the profession, such as disease prevention, state aid for the Board of Health, the fee-splitting evil, the care of incompetents and the need of the observance of sanitary regulations, were among the subjects treated which are especially deserving of attention. Particularly apt were Dr. Cooper's strictures on the short-sighted policy of our state legislature. He says: "The lawmakers of the state are always ready to hand out large sums of the people's money to some lawyer for legal advice, but for prevention and cure of disease they do not seem to understand the necessity of making an appropriation."

There Dr. Cooper hit the nail on the head. They do not understand. It is necessary to wage a campaign of education to make them understand. Eight years ago the legislature passed a two-cent railroad fare bill without even giving the railroad people a hearing.

The result was extended litigation which cost the state thousands of dollars in costs and the big fees of special lawyers, fees so large that a physician would not earn the total in a lifetime of successful practice; and, after all, the United States court has just granted a second injunction of the enforcement of the law, which was passed without any investigation of whether such a law was justified by the earnings of the railroads, and which to defend up to the United States Supreme Court, will demand other thousands of dollars in fees and costs, with the likelihood that at last the law will be invalidated.

This is only one illustration of the measures set apart by demagogues, not for the public good, but for selfish motives only.

Arkansas is behind almost every other state in the Union in appropriations for the conservation of the public health. That the state has in the past escaped devastating epidemics such as yellow fever, which years ago practically bankrupted some of the Southern cities, has been due more to luck than to good judgment. It should not be forgotten that in reply to an argument for a Board of Health appropriation in the 1913 legislature, when the fact was incidentally mentioned that hookworm disease might be contracted from polluted soil by a scratch on the foot, that a wise lawmaker gave it as his opinion that all such talk was inspired by the Leather Trust to make the people wear shoes! This is perhaps an extreme case of legislative ignorance and imbecility, but the tardiness of the legislature to recognize the necessity of a liberal appropriation for public health purposes would lead us to the conclusion that the same feeling, as crudely expressed by the anti-leather trust Solon, is more or less general. As a matter of fact, absolutely no measures are of so great importance as those touching public health. The strange thing is that the individual recognizes this fact as it affects the health of himself and family. No man will expose his family to disease for gain or any other consideration, but men lose sight of the fact that a state is but an aggregation of individuals and the same consideration is due the public as the individual or the family. Some day, perhaps, our lawmakers will awaken to the necessity for health legislation, but it may take an epidemic to awaken them. Meanwhile, such talks as given by Dr. Cooper will have their effect in educating public

opinion, which in the last analysis prompts legislation. As far as the public is concerned, we regard this part of Dr. Cooper's address as its most valuable feature.

Every physician in the state should heed Dr. Cooper's words on sanitary observance as it affects the office of the physician and his home. It is useless, as *The Journal* has heretofore pointed out, to hope for the enlightenment of the laymen in this important matter while they see, as they may in many places, physicians' offices unsightly and unsanitary and their homes in like condition. We must clean up our own dirty places before we can, with good grace, insist on sanitary observance by others.

The fee-splitting evil properly comes in for well-deserved rebuke. No one in any profession so well deserves his legitimate fees as the physician; but his fees must be ethically due. No sophistry can justify the fee split with an operator. If it is a just and ethical fee, there should be no need of secrecy in collecting it. It would not be under the condemnation of reputable medical societies, nor, as Dr. Cooper points out, of the law in some states.

The address is given in full in this issue of *The Journal* and we commend it to our readers for their thoughtful perusal. We have dwelt on these parts of it because we wish to emphasize them and to give them our full and hearty endorsement.

THE WAR AND THE FUTURE.

In a recent issue of *The Journal* we had an editorial on the effects of the war in Europe on future generations. That article was based on the fact that the physically fit were the first victims of the war, the less fit, the old, the infirm and the diseased being left at home to become the fathers of the next generation. And now comes another feature not touched upon in the former editorial. That comes in the report of the Vital Statistics Bureau of Paris. It is a little more than nine months since the French armies mobilized and went to the front, and the report for the month of May shows a decline in the birth rate of something over fifty per cent. Paris has never had a birth rate satisfactory to the opponents of race suicide since she has been the fashionable and frivolous capital of Europe. She is no longer frivolous nor given over to vice and folly, but she can ill afford such an

alarming decline in her birth rate. This cutting of the birth rate in two is a national calamity and will add to the effects of the frightful war whose baneful aftermath must be felt for generations in every nation involved in the titanic struggle.

Abstracts.

CLOSED FRACTURES.

P. S. Campiche, San Francisco (*Journal A. M. A.*, May 15, 1915), criticizes the tendency of some surgeons to adopt the open method too much as a routine procedure. The results of conservative methods may have been often bad, but the results of operations for fractures are often worse. There are some special dangers in recent fractures that must not be ignored. These are the danger of infection, and that of deficient callous production, which is the rule in the presence of a foreign body. The field of a recent fracture is an excellent culture medium, and the skin of the patient may furnish the germs. Occasionally scrupulous antisepsis may not prevent the infection. Keeping in mind these dangers, and remembering also the shortcomings of bloodless procedure, he asks when shall we operate and when not. In his opinion operation is indicated in recent fractures when the surgeon, carefully weighing the advantages and disadvantages of the two methods, finds that the prospect of serious impairment of function is so great as to outweigh the risk of operation, and also bears in mind the experience of known authorities in this regard. A marked deformity in itself is not an indication to operate. If a good functional result is probable without operation, it is our duty to refrain. Campiche says he has strong reasons to believe that about 80 per cent of the operations now done in fracture cases are unnecessary. These are nothing in comparison, however, to the harm done to patients in case of accidents. He remarks on the steady improvements of conservative methods of late years, especially in the technic of extension, by Bardenheuer, and Heusner. The making of a plaster cast has also become a work of precision, and the substitution of the use of plaster splints, allowing early massage and movement and the much shorter immobilization of fractures of all bones, are also to be hailed as advances. According to his views, he would not operate

before the end of the first week, when the reduction is as easy and the risk of infection greatly lessened.

Personals and News Items.

Dr. S. P. McConnell has recently been appointed local surgeon for the C., R. I. & P. Ry. Co., at Booneville.

Dr. C. W. Garrison, chief health officer, Arkansas State Board of Health, last month attended the annual conference at Washington of public health officers, the National Conference of Charities and Correction at Baltimore, and a conference of health officers of the Southern States, at Atlanta.

Drs. Leon Mooney, Mountain Home; W. G. Hodges, Malvern; George S. Brown, Conway; John Stewart, Booneville; E. L. Watson, Newport; J. C. Cleveland, Bald Knob; C. A. Areher, DeQueen; W. H. Toland, Nashville; H. Castile, Winchester; Loyd Thompson and L. R. Ellis, Hot Springs, and Earle H. Hunt, Clarksville, visited in Little Rock last month.

Among the physicians attending the summer course given by the Medical Department of the University of Arkansas, we find: Drs. W. F. Hooper, Magazine; Harry Altman, Fort Smith; C. F. Cole, Prattsville; J. C. Gilliam, Des Arc; W. M. Majors, Waleott; L. T. Strange, Stamps; M. C. Reves, Murillo; O. D. Ward, England; J. L. Smiley, Siloam Springs; J. C. Blackwood, Jasper.

RESOLUTION ADOPTED BY THE MEMBERS OF THE LITTLE RIVER COUNTY MEDICAL SOCIETY.

Whereas, During the session of the recent General Assembly, at various times a number of important measures were introduced in the interest of public health and hygiene, in connection with our present health laws; and,

Whereas, During the session one of its members who *was* a member of the Little River County Medical Society opposed important measures that were of special interest to the state health laws, after promising the members of the society here in advance that he would not oppose any measure that would be of interest and benefit to the state health laws; therefore, be it

Resolved, That the members of the Little River County Medical Society have adopted this means to let it be known to the medical profession of Arkansas and the profession at large that we condemn all actions that were concurred in by the said member in connection with the state health laws.

W. E. VAUGHAN,
Secretary Little River County Medical Society.

PENNSYLVANIA'S DEPARTMENT OF HEALTH.

Dr. Samuel G. Dixon, Philadelphia, whose renomination as state commissioner of health was sent to the Senate by Governor Brumbaugh, May 17, was confirmed by that body, May 18. This is the third reappointment of Dr. Dixon to this responsible position. He has completed nearly ten years of valuable service to the commonwealth in this position. Under his direction the Department of Health has attained high rank among public organizations of the country, and its activities have reached all sections of the state. The General Assembly just adjourned appropriated \$4,632,387.00 for public health work during the next two years. Of this amount \$2,975,807.00 was for tuberculosis work.

COUNTY SECRETARIES' ASSOCIATION BANQUET.

(Reported by Dr. Thomas Douglass, Ozark, Secretary.)

A very pleasing feature of the state meeting was the second annual banquet of the County Secretaries' Association, held at the New Capital Hotel, Little Rock, on the evening of the opening day of the convention. There was certainly some class to that banquet, and the success of the whole affair was due to Dr. Bathurst, the editor of *The Journal*. He did it. I would like to say more on this feature, but as this must pass under his eagle eye before appearing in print, I refrain, lest modesty cause him to eliminate it entirely.

One of our distinguished visitors was Dr. Edward Saunders of St. Louis, who gave an interesting talk on "The Feeding of Babies." We were all pleased to have with us Dr. L. P. Gibson of Little Rock, for a long time secretary of the State Society and editor of *The Journal*, who gave away some professional secrets as to how best to manage county so-

cieties. Dr. Snodgrass (of the "pill box" crew) delivered a good speech, in which he favored admitting to membership in the county and state societies all licensed practitioners in the state. In his opinion, he said, there were too many medical societies, and that in addition to the county and state societies, one national society is enough. He predicted that within ten years all medical schools would be found combined with the regular schools.

Dr. St. Cloud Cooper, retiring president of the State Society, described a little journey to Little Rock and gave us a wonderful diagnosis in conclusion. Drs. J. B. Dooley, president of the Pulaski County Medical Society; C. P. Meriwether, secretary of the Arkansas Medical Society; William R. Bathurst, editor of The Journal, all of Little Rock, and some others, made interesting talks and all present thoroughly enjoyed the affair. Next year we hope to have a still larger number of the secretaries present at the annual banquet.

TRANSACTIONS

OF THE

Thirty-Ninth Annual Session

OF THE

ARKANSAS MEDICAL SOCIETY

May 3, 4, 5 and 6, 1915

LITTLE ROCK, ARK.

HOUSE OF DELEGATES.

FIRST DAY—MONDAY, MAY 3, 1915.

The House of Delegates was called to order at 2 o'clock p. m. by the president, Dr. St. Cloud Cooper. Invocation by Rev. Sam Campbell:

O Lord, our Heavenly Father, Thou who art the author of life and salvation, the giver of every good and perfect gift, the giver of our Lord Jesus Christ, the great physician of the soul, it is into Thy presence we come to thank Thee for all Thy mercies, to thank Thee that Jesus Christ gave inspiration to man, not only to minister to the souls of men, but to minister to the physical needs of suffering humanity. We thank Thee, Heavenly Father, that, as the great Divine Physician, He went about doing good, healing the sick, curing the blind and unstopping the ears of the deaf. Yea, He even raised the dead. We thank Thee that He said when He went away, that greater work than this shall award them; and we have been made to realize through the ages that greater work has been done because through the medical fraternity the needs of suffering humanity have been met and the aches and pains of mankind have been relieved. We thank Thee, our Heavenly Father, for this body of men, for their unselfish service to mankind. We believe, our Father, that those who go by night and by day to the bedsides of the suffering deserve praise and should hold places in our affections so high and so holy that we should more deeply appreciate them. We pray, our Heavenly Father, that, as they minister to the needs of mankind, they may not forget that there is a great Divine Physician who can give all-wisdom and all-strength, and who can make them ways to see and to know, and who can place their labor that they may accomplish good. We trust that they may embrace Him as the Savior of their souls, and as the one who shall inspire them in their life work. May they speak as they minister to those that suffer; to be indeed angels of mercy to suffering humanity; and may they not only minister to the body, but may they minister to the soul, and in this way hasten the coming of Him whose coming shall be perfect peace and the reign of perfect peace.

So, our Father, as they meet here in this convention to plan and to discuss great themes that shall be of interest to every man, we pray that Thou wouldst help them to gather new thoughts, new ideas and new inspirations. May they go away from this place better equipped for their life work. We pray, our Father, that Thou will guide them in all their deliberations and keep them in the very hollow of Thy hand, and bless their families and bless their loved ones, and bless the people to whom they minister. Wilt Thou so direct them in all things that Thou shalt hasten the time when the Great Physician of the soul shall come in all His glory, bringing the holy

angels with him? All of which we ask in Jesus' name and for His sake. Amen.

ADDRESS OF WELCOME.

Dr. A. E. Harris:

Mr. President and Delegates of the Arkansas Medical Society:

On behalf of the Pulaski County Medical Society and the citizens of Little Rock, allow me to extend to you a most hearty welcome to our city. Let me assure you that we are not unmindful of the character of this body of men and what they represent. You are the picked men of the medical profession of the state, chosen to adopt legislation for the benefit of the profession. We look to you for advances in policies to be pursued by the medical profession for the ensuing year. The Committee on Arrangements has selected this historic edifice; whether from the fact that your discussions will be less acrimonious, or to remove you from the temptations of the large hotels, I don't know; I leave that for you to infer. We have about one hundred members of the Pulaski County Medical Society in good standing, and I feel that I can speak for all of them when I say that we not only welcome you here, but in our offices and in our homes. Gentlemen, we wish to see you. We want to know you. While medicine is the main issue at this convention, we have physicians among us who, in their leisure moments, are as conversant on other topics as they are in medicine; such as Gibson, on Woman Suffrage; Vinsonhaler, on Golf; Ogden, on Frize Fighting; and Vaughan, on Baseball. Needless to say, all of them can discuss politics. When these scientific problems pall, please consult the aforesaid mentioned gentlemen for enlightenment on these subjects. Again, gentlemen, I wish you a very hearty welcome, and want to thank you for selecting this as the meeting place, and let me trust that you will see fit to make Little Rock the permanent home of the Arkansas Medical Society.

RESPONSE TO ADDRESS OF WELCOME.

Dr. T. B. Blakely:

Mr. President and Delegates of the Arkansas Medical Society:

I think it was a mistake to put me on this program. I was either put on through mistake or accident. I got a letter from Dr. Bathurst two days ago that my name had been put on the program to respond to the address of welcome, and hoped I would be here and deliver the goods. I answered the invitation, and I think my letter came on the same train that I came on, so that he had due notice that I would be here.

Now, gentlemen, we are proud that we are here. We are proud of this Arkansas Medical Society. We are proud that we are members of such a progressive and successful society, and I shall always cherish the day that I became

a member of such a fine, progressive society. I count it a great honor and a great pleasure to have the privilege of responding to this very welcome address by Dr. Harris. We are proud of your city, and I suppose that you are all proud of Little Rock, the capital of the great State of Arkansas; not the greatest state, but one of the greatest states in the Union. God Almighty made it Himself that way. I think it is one of the healthiest cities in the world. Its geographical situation and location make it a very desirable place indeed. Way back in another century, when I came West, I had the pleasure of stopping off here in Little Rock one night. I had a lady friend traveling with me, and we certainly did have a good time and enjoyed ourselves that night. That was in my younger and better days. I was just as full of mischief as I could be. Perhaps it might be well to tell you that that lady friend was my wife, and we had only been married about twenty-four hours. Strange to say, we are still living together, both well and well satisfied. It was many months and years before I had an opportunity to visit your city again, but the name and place has always appealed to me as being a very desirable place to live in, and also a very desirable place to die in. I believe Little Rock is nearer heaven than any other city in the world. And I imagine when that old ship of Zion is loaded with its cargo of saints and headed for that beautiful and celestial city, it will be loaded in and launched from the foot of Main Street. Especially do I think that will be the case when the Going prohibition law goes into effect and Senator Clarke gets an appropriation big enough to have the Arkansas River dredged so that it will be navigable. I have been advised by the most expert civil engineers in the country that Little Rock is not only in the center of Arkansas, but the center of the whole world, bounded as it is on one side by the beautiful Arkansas River, on the other by the magnificent Ozark Mountains, below by prospective oil and gas, and above by heaven, inhabited by angels and archangels. I don't mean Arkansas angels, by any means, but sure enough angels. (Applause.) It is right here in Little Rock that you can do most any old thing. You can actually worship and serve God according to the dictates of your own conscience. As an evidence of that fact, we have all sorts of religions from Roman Catholicism to Holy Rollers. And, you are not cut short when it comes to medical advice, where you have doctors of all kinds and cults, from the country veterinary to the chiropractic manipulator, who claims and in fact guarantees to cure all forms of disease and deformity by a slight manipulation and an adjustment of the spinal column. Of course, we sure enough doctors don't believe they can perform any such miracle.

It is here in Little Rock that you are kept pleasant during the hot summer months by the cool zephyrs from the placid Arkansas River, and during the cold winter months your gaze rests upon the perpetual snow and ice that decorate the Ozark Mountains. Hence, to live here would be heaven for me. I suppose you are all familiar with the story of the dead man that was shipped from Memphis to Oklahoma City a few years ago for burial. It was just down the Iron Mountain railroad a short distance when the express man was astonished and alarmed when he heard the dead man turn over in his coffin and say, "Put me off and bury me at Little Rock." I presume his request was granted, and today he is quietly and peacefully sleeping in the cemetery out here.

It has been rumored, and I believe it to be a fact, that we have the best equipped doctors and best informed lawyers in Little Rock than any state in the South. It might be asked how I knew this and where I got my information. The doctors and lawyers admit it, and plead guilty.

It is here in Little Rock that you boast of having the most beautiful old maids and young widows, both grass and sod, and the crankiest old bachelors and widowers that ever lived, so help me God. The reason I say they are the crankiest is that, if they were not, they would consolidate and form a business copartnership with these old maids and young widows that would be pleasant, profitable and prolific; and, if the scheme proved to be a failure, with the initiative, referendum and recall, the whole thing could be set aside with little expense and very little trouble.

You have the best mayor, the best looking mayor, the best town council, the best schools, the best school board, more churches, more church-going people, and more Christians of that consecrated kind, than has a mountain of Bible faith builded up around about them so that there is no danger of any slipping or back-sliding, and fewer infidels and anarchists.

You have the best judge and prosecuting attorney, the greatest governor ever elected in any old state. And, whosoever is so bold and reckless as to violate the laws especially the white slave Mann act, subjects himself and is indeed invited to take a seat in the electric chair, there to suffer death and eternal punishment.

You have more pretty girls and athletic boys, the best cooks and fast trotting horses, the most beautiful scenery, broad-minded and broad-gauged men and women, the prettiest roses, the finest church houses than of any city in the country.

And the preachers tell me that they have the most beautiful church choirs, the finest singing, the sweetest music that ever floated out on the stillness of the night, more beautiful and charming than the songs of the nightingales of the empire of Germany, and the best string and brass bands. And music has a wonderful effect on the American people, especially on the doctors of the Arkansas Medical Society. The doctor that neither loves wine, women or song remaineth a fool all the day long. The doctor that puts his doubloons on wine will tell you that wine is a stimulant that brings joy like money from home, removes stains from the character and prevents stiffening of the joints in old age. And the very name of woman falls on my ears with peculiar and indescribable charm, like the gentle murmur of a low fountain stealing forth in the midst of roses or the soft, sweet accents of angels whispering in the bright and joyous dreams of sleeping innocence. And music and song have charms to soothe the savage, to soften a stony heart and prevent discord in the home, like the victims of the Titanic cheered on and on by the sweet music of the band playing the sweet strains of "Nearer My God to Thee," till the waves passed over their heads. And I have an abiding faith that in that great day when the Lord shall say, "Earth and sea, give up your dead," that those musicians will have an opportunity of hearing that same sweet song sung by the angels in heaven, "Nearer My God to Thee."

It would be just as practicable to undertake the project of cultivating an orange grove on the bleakest summit of Greenland's icy mountains as it would to undertake to make a correct diagnosis and prognosis of every case of sickness and disease. But, doctors, we should be honest, energetic and painstaking, and try to make our diagnosis plain and our prognosis clear. Sure, we know it is not given to doctors to look into the future, and it is well it is not given to us to look into the seeds of time and say which grain will grow and which will not, or to say which patient will live and which will not; but this we know, as King Lear knew, even in his madness: that mortality is indelibly stamped upon all the children of men.

The little mountain streams gurgle and hiss and hurry along, impatient of restraint, but, down at the foot of the mountain the broad river flows majestically on, and it looks up to the little mountain streams and seems to say, "Come to me, come to me, and I will give you rest." Charon, the eternal boatsman, shouts his awful invitation to all the children of men. Humanity, like the little mountain streams, is impatiently racing around rocks and hills and across the little valleys to join the silent vessel. Nothing can impede its progress. The protestations of love, the seductive whisperings of ambition, the frenzied struggle for glory and gain, are all powerless to impede it. So, it is a notorious fact that we all must go, and that soon, to join that great and silent majority. Death touches us with his finger tips and bids us follow him. So we must be willing and try to be ready to conform to the plan of Almighty God, from dust thou art, and to dust shalt thou return.

I would like to live in a city like Little Rock. I would like to live, die and be buried right here in Little Rock, so that when we, with angel's wings, can fly to that beautiful home beyond the sky, I would like to take that flight from Little Rock, where we will spend the remainder of our spiritual lives, and it is there that we desire to meet these doctors and their wives.

The president here appointed the following as the Committee on Credentials: Dr. Cargile, Dr. Carlin and Dr. Norwood.

After examining the credentials of the delegates, the committee, through Dr. Cargile, reported as follows:

The committee reports that all the credentials are regular that are in hand.

The roll was called, and a quorum of delegates was noted as being present.

On motion of Dr. Snodgrass, the reading of the minutes of the last meeting were dispensed with, they having been published in The Journal.

The president appointed the following committees: Reference Committee—Dr. O. L. Bourland, Dr. C. J. March, Dr. Robert Caldwell.

Resolutions Committee—Dr. H. Thibault, Dr. J. G. Eberle, Dr. Earle H. Hunt.

PRESIDENT'S ADDRESS.

Gentlemen of the House of Delegates:

I wish to thank the Arkansas Medical Society for electing me to preside at this meeting. As president of this society, I have tried to perform the duties required. I have before me today the representatives of the various county medical societies. You are here in a legislative capacity. Your society charges you to uphold the dignity of the profession and to exert yourselves in behalf of

medical science in order that the whole community will derive benefit. Many of you will remember the hard work that has been done by members of this society in getting enacted the present health law and law of vital statistics. It is our duty to assist with all our might the health officers of the city, county and state. It is our duty to educate the people in health matters. Many of our county and district medical societies have public meetings—meetings to which the public is invited to be present and to participate, which have been of great educational value to the public. We can truthfully say in public health matters that we are our brother's keeper, and as soon as the public is shown what can be done in the way of preventing disease and lengthening the term of life, they will instruct their representatives to favor legislation along these lines. Much has been done in this state by health agitations in the last few years. People now know that the mosquito causes malaria; that polluted soil causes hookworm; that bad water, bad food and the presence of flies cause typhoid fever. They know the danger of impure milk, and demand milk inspection. They are clamoring for knowledge concerning pellagra, which exists to an alarming extent in this state. They say to us that we must find out the cause. I do hope that the cause of this dread disease will be discovered by some Arkansas physician.

The tuberculosis societies in this state have done much good; of late, however, I have not heard much from them, but we must not let such a good movement die; we must take the initiative and leadership in all health matters. It is so easy for us to say since these health measures are for the benefit of the people, the people should lead; the people will not lead and we must sacrifice time, money and comfort, and continually show them the way to live and to help others live. The club women of the state have done much good toward furthering health matters. This must be encouraged and assistance given them when requested. The labor organizations see the benefit of health measures, and their influence must be had. Our weekly and daily publications will gladly print, when approached in the proper manner, anything pertaining to public health. The Publication Committee of our county societies should prepare papers for publication upon health matters. As soon as the people are instructed about prevention of disease and learn about sanitation, they will demand these measures.

What duty do we owe to our profession? In order to keep in touch with organized medicine, we must belong to our county and state medical societies. We must not only belong to these societies, but we must attend and take part in the life of the meetings. We must try to enthuse our medical friends to regularly attend. Let us go back to our homes resolving to do all that we can to build up our county societies. If you have an idea that your county medical society is run by a ring, organize a ring of your own and bring your ring with you to every meeting. We cannot forget what the great American Medical Association and its Journal has done for every individual medical man in this country. What would we be today without this great public benefactor? Benefactor to the doctor as well as the public. The people look upon the honorable physician as a leader of the community, therefore you must be found in the first ranks of those who wish to uplift mankind. We must ever uphold the dignity of the law. We must continually preach and insist that this state have ample, up-to-date hospital for the insane; we must also have a larger tuberculosis sanatorium. We must have a home for the epileptic and feeble-minded; we must insist on having ample money for the state educational institutions, for in education there lies safety. As honorable men we must expose the fee-splitter. Fublicity will kill him. As medical men we know the enormous amount of murders committed by the abortionist. We know that in this state alone more than a thousand murders are committed by those cowardly fiends each year. In most communities these men are known to the profession as well as by the laity. These murders must be stopped. In my experience the Protestant woman who comes to you to have her unborn slaughtered does not think she is committing a murder. On the other hand, the Catholic woman is taught that it is murder, and that she is committing an unpardonable sin. If you will stop to think, you will find that but few Catholic women come to you and ask you to perform an abortion. This may be one reason the Catholics are increasing so rapidly in this country. It is the churchman's duty to preach oftener on "Thou shalt not kill." It is our duty to expose the cowardly fiend—the abortionist. I will say in passing that I am not a Catholic, but I admire the stand the Catholic church takes upon this subject. The last legislature has made provision for a State General Hospital, and it is our duty to assist it in every way we can. It is proper that it be located in Little Rock. To the poor it will be a great blessing. To the Medical Department of the State University it will greatly add to its efficiency as a medical institution. As time goes on we will see each county have a hospital for the care and cure of the indigent poor. I trust that the good that such an institution as the State General Hospital will do, will not be blighted by politics.

I wish to give deserved praise to Dr. Bathurst in the able manner in which he has conducted our State Journal. Perhaps if some of our members would now and then contribute something along the line of general welfare of the profession, his task would be less burdensome and he would not feel so lonesome. What is the reason our councilors cannot from time to time give us a contribution? The report of society meetings by the secretaries is always interesting reading. Let us help the editor in every way we can to make The Journal what it should be.

We find in this state a fine field for the growth of the so-called healers. The last legislature recognized the chiropractors, a class of pretenders who do much harm by their ignorance. All of you see the lamentable loss of life where the pernicious cult of Christian Science is permitted to chant their meaningless gibberish at the bedside of the sick. Optometry, osetopathy and any other old cult is permitted to flourish. I think that it is the duty of the medical profession to constantly wage a warfare upon these pretenders by enlightening the public, by reading papers before lay audiences, writing for the newspapers and exposing these quacks at all times.

The osetopath and the chiropractor can be eliminated in a measure by the physicians of the larger towns and cities encouraging honest masseurs to settle in their community and sending to them cases that need massage.

We sit still with the hope that these various pretenders will eventually die out, but it takes a long time for the public to find out the false from the true when it comes to healing the sick. It is a pleasure to note the organization of the trained nurses into a State Society. The state now has a Board of Nurse Examiners, whose duty is to protect the public and the medical profession against persons who are not regular trained nurses. The trained nurse is no longer a luxury, but a necessity, and our state law requires that she be trained in a proper manner in institutions that come up to the proper standard.

There has grown up a practice among some to, directly or indirectly, seek office; it is the wrong spirit and tends to lower the dignity of the society; it should not be tolerated, and I am advocating that no man be honored in this society who is an avowed candidate for office.

Thanking you for your kind attention, and with best wishes to all of you, I will now give way for the regular business of the session.

Secretary: You have heard the reading of the president's address. What is the will of the society? If there are no comments to be made, it will be referred to the Committee on President's Address. And I will appoint on that committee, as none of the vice presidents are present, Dr. Bathurst, Dr. Norwood and Dr. Willis.

REPORT OF COMMITTEE ON SCIENTIFIC PROGRAM.

This year the Committee on Scientific Program has had to do the combined work that has heretofore been assigned to fourteen section officers. However, after holding several meetings, ten luncheons, and writing over three hundred letters, we are now ready to report that we have gathered together a splendid collection of sixty papers. The number has been increased over previous years, as we believed that since discontinuing the various sections the time gained might be utilized for a more extended program.

In submitting this program we hope for a high scientific achievement, and we wait for the conclusion of the session to show us whether or not we have been successful in our endeavors.

WM. R. BATHURST, Chairman,
ROBERT CALDWELL,
C. P. MERIWETHER.

REPORT OF COMMITTEE ON TRAINING SCHOOLS, TRAINED NURSES AND HOSPITALS.

The committee sent the following list of questions and letter to each of the hospitals in the state, (24) twenty-four in number:

QUESTIONNAIRE.

1. Do you conduct a training school for nurses?
2. Is your school chartered by the State Board of Education?
3. What is the length of time required for pupils to graduate?
4. How many pupil nurses are in your school at this date?
5. Have you complied with the curriculum endorsed by the State Board of Education?
6. When was your training school for nurses chartered?

7. How many pupils did your school graduate in the calendar year of 1914?

8. How many persons were registered as patients in your institution in the calendar year of 1914?

9. How many private rooms have you for patients?

10. How many wards—number of beds in each?

"Little Rock, Ark., March, 1915.

"As chairman of the Committee on Hospitals and Nursing Schools, appointed by the president and endorsed by the Arkansas State Medical Society at the El Dorado meeting in May, 1914, to report on hospitals and training schools for nurses in this state at the next annual meeting of the Arkansas State Medical Society, which will meet in Little Rock, May, 1915.

"The committee wishes to make a complete report on all institutions in the state engaged in hospital work.

"Please do us the kindness to answer the questions on enclosed blank and return by mail immediately to the chairman of the committee.

"WM. A. SNODGRASS, Chairman,
"Little Rock, Ark."

Eleven of the hospitals replied. Out of the eleven reports sent in we have compiled the following:

Pupil nurses in training during the year 1914....	118
Graduated in the state from the various hospitals	32
Beds listed	343
Patients cared for.....	7,085

We think this represents about one-half the nurses graduated during the year.

The committee regrets that those most vitally interested in the management of hospitals and training schools have shown so little interest in the Arkansas Medical Society, and that we could not get a complete report of the work done in all the hospitals and sanitariums in the state. We know that some of these schools for nurses are doing good work and that the schools are fulfilling all the requirements asked by the State Board of Education.

The committee recommends that the members of this society take more interest in our training schools and that they use their influence in every way possible to support the hospitals and training schools in our state, and assist our young ladies who take up the profession of nursing.

We believe the training schools of our state are worthy institutions and should receive the hearty support of the Arkansas Medical Society.

(Signed)

W. A. SNODGRASS, M. D.,
LEONARD ELLIS, M. D.,
EARLE H. HUNT, M. D.

Dr. J. T. Palmer: What is going to be the effect of that on a graduate from a hospital, the manager of which is not eligible to membership in the county or state medical society?

Dr. W. A. Snodgrass: I say under the state law as to the registration of trained nurses, it would not make any difference at all whether he was a member of the Arkansas Medical Society or not. We all know the State Medical Society has very little to do with medical questions when it comes to a legal point.

Dr. F. B. Young: I want to say that I was chairman of the committee of the American Medical Association to look into the reports of hospitals in the State of Arkansas for this year. Dr. Bathurst, and Dr. Williamson of Marianna, were the other two members. I sent out their form of blanks to every hospital in the state that I could learn of. Practically all of them answered this request very promptly, with the exception of St. Vincent's, in Little Rock, St. Joseph's, in Hot Springs, and the Sparks Memorial, in Fort Smith, the three largest hospitals in the state. I sent each of them three blanks, and three strong personal letters, asking them to report to us. Now, the three largest hospitals in the state absolutely ignored the whole proposition and did not deem it necessary to even give us a courteous reply or to report. Now, there are gentlemen here who are connected with each of these hospitals. I think it is your duty to go back and find out why they did not. I just saved this little thing to spring here, instead of writing to Dr. Cooper, for instance, or Dr. Ellis or Dr. Snodgrass, or any other of my friends who are connected with the institutions. I thought it would be better to give just a little publicity, and ask these institutions why they did not answer. Now, they

go into the record of the American Medical Association for the next two years in bad standing, because they would not waste one two-cent stamp and fifteen minutes time to give us the data we asked, after we had wasted six cents in stamps and about thirty-five or forty minutes in time. It is not right, gentlemen; the lack of co-operation between the hospitals and organized medicine is deplorable. And I ask you gentlemen, individually, when you go back home, to ask the management of those three hospitals why they didn't do something. I know they got the letters, because I sent them in return envelopes, all three of them. Now, there was no reason why they should not have gotten them, and I sent three different ones. The report is already printed, and it shows that the State of Arkansas has not got the hospitals that it really has, and it is wrong.

President Cooper: Why not write to some of the doctors?

Dr. Young: If the hospital management itself hasn't enough interest in the matter, I take it that I was not going to put a burden on my personal friends. If I had written to you, I would have gotten it, or to Dr. Eberle, or called up Dr. Snodgrass or Dr. Meriwether or Dr. Smith, or anybody else connected at St. Vincent's. I could have called up Dr. Laws, Dr. Dake or any of my personal friends in Hot Springs and gotten it. But I take it that it is the duty of the hospital management to co-operate with organized medicine. When a representative of a medical organization sends a formal request, it is their duty to answer it.

Dr. J. G. Eberle: I accept Dr. Young's criticism with all due humility for the Sparks Memorial Hospital at Fort Smith. I am surprised beyond measure that the letters were ignored as he says they were. I know they were, or he would not have said so. We have there a superintendent of whom we are proud, and a hospital training school of which we are proud, and I don't know why she ignored the letters. And, as I say, it is a surprise to me that they were ignored, and if fate should put me on any committee to make this investigation another year, I think I can promise for the Fort Smith hospital that it will make the report.

Dr. Young: Fort Smith is not on the map of the American Medical Association, in a hospital way, except as far as St. Edward's is concerned. St. Edward's answered.

Dr. W. V. Laws: I wish to have a word to say in regard to St. Joseph's, of Hot Springs. They have a medical board over there—I am not a member of it—and I feel that if Dr. Young's letter had been sent to the board, he would have gotten the desired information. Of course, it may be possible it did not get into the right hands. Every hospital in Hot Springs has a medical board that attends to these particular matters, and I feel that St. Joseph's would have answered if he had written to the board.

Dr. Young: I am willing to admit that if I had written personal letters to some of my personal friends, I would have gotten some information, whether it was right or wrong.

REPORT OF DELEGATES TO THE A. M. A., 1914.

Dr. W. V. Laws: I don't know that I have a great deal to report, only that I was alone in representing the State Medical Society at the American Medical Association meeting last year, as my colleague, Dr. Caldwell, was unfortunately detained on account of sickness. The proceedings of the House of Delegates, of course, are published in The Journal of the American Medical Association, of which you have all read. But, in case some of you would like to look up anything, I have brought a copy, which I will give to the

secretary. The only one thing that I would like to impress upon the delegates is that, in selecting delegates to the American Medical Association, I think you should ascertain whether it is going to be possible for them to attend, because I believe that it is of the utmost importance that Arkansas should be represented by its full quota of delegates at each meeting; and especially when the meeting is at a distance. I think if a man is not going to attend, someone else should be put in his place, because it is of the utmost importance that we should be represented in the House of Delegates of the American Medical Association each time. As I say, I represented it. Of course, last year Dr. Morgan Smith was fortunately a member from the Section on Preventive Medicine, and has been a member of the House of Delegates of the American Medical Association for a number of years, and it was not as bad as if there had only been one delegate, because he helped me represent the state.

REPORT OF THE SECRETARY.

To the President and Members of the House of Delegates of the Arkansas Medical Society:

In compliance with the Constitution and By-laws of this society, I beg leave to submit the following report for your consideration:

This society is now composed of 63 component county societies. We have four counties in the state which have never had an organized county medical society, namely, Van Buren, Stone, Newton and Scott. Three county societies have been organized heretofore, but have been in arrears for over two or three years, namely, Fulton, Sharp and Marion. Five county societies have failed to pay their dues for this year, namely, Poinsett, Prairie, Pike, Perry and Izard. I believe, however, each of them can be brought back before the next meeting.

We now have a paid membership of 948 members, which is sixty-five short of our membership at the last annual meeting, which, owing to the financial depressions throughout the state, I consider a very good showing.

The secretaries of the component county societies have been slow in making their reports, due, I am sure, to the fact that their membership have been slow in paying their county dues. Not more than seven county secretaries sent in their reports within the time limit—the majority of them having made the report within the past ten days or two weeks, and not more than half used the blank form which we furnished them for their annual report. This makes quite a burden on your secretary, and often causes errors in keeping the records of the component societies.

We have received for dues, since our last annual report, \$2,511.00; received from the editor of The Journal for subscriptions and advertisements, \$1,219.67, making a total income of \$3,730.67. Cash in hands of treasurer, last report, \$3,239.71, leaving cash in hands of treasurer secretary, \$4,232.92, making a total on hand at our last report of \$4,270.05. Vouchers drawn on treasurer since last report, \$3,239.71, leaving cash in hands of treasurer of \$1,030.34, giving us cash on hand to date, \$4,761.01. There are no outstanding bills.

Respectfully submitted,

C. F. MERIWETHER, Secretary.

On motion, was referred to the Council.

REPORT OF TREASURER ARKANSAS MEDICAL SOCIETY, MAY 22, 1914, TO MAY 3, 1915.

RECEIPTS.

Balance on hand.....\$ 37.13
May 30, 1914. From secretary..... 4,232.92—\$4,270.05

DISBURSEMENTS.

1914.
Voucher No. 361. C. P. Meriwether.....\$ 573.25
Voucher No. 362. Wm. R. Bathurst..... 603.25
Voucher No. 363. M. C. Houghney..... 20.94
Voucher No. 364. T. B. Bradford..... 30.70
Voucher No. 365. C. A. Archer..... 10.00
Voucher No. 366. J. F. Rowland..... 7.65
Voucher No. 367. W. A. Snodgrass..... 21.85
Voucher No. 368. J. T. Clegg..... 25.00
Voucher No. 369. J. C. Hughes..... 25.00
Voucher No. 370. Central Printing Co..... 242.94
Voucher No. 371. F. S. Overton..... 54.30
Voucher No. 372. Southern Trust Co..... 7.50
Voucher No. 373. Noel Loeb..... 94.40
Voucher No. 374. Central Printing Co..... 234.05
Voucher No. 375. Spott & Jefferson..... 25.00
Voucher No. 376. Central Printing Co..... 131.05

Voucher No. 377.	Central Printing Co.....	159.87
Voucher No. 378.	Central Printing Co.....	95.68
Voucher No. 379.	Central Printing Co.....	94.10
Voucher No. 380.	Central Printing Co.....	22.00
Voucher No. 381.	Central Printing Co.....	108.10
Voucher No. 382.	F. S. Overton.....	47.48
Voucher No. 383.	Central Printing Co.....	3.50
Voucher No. 384.	Central Printing Co.....	112.18
Voucher No. 385.	Central Printing Co.....	135.26
Voucher No. 386.	Central Printing Co.....	113.92
Voucher No. 387.	Central Printing Co.....	109.78
Voucher No. 388.	Central Printing Co.....	130.96

Balance on hand.....\$3,239.71
\$4 270.05

On motion, was referred to the Council.

READING OF COMMUNICATIONS.

The secretary read communications from the Elks lodge and Young Men's Christian Association, extending the courtesies to the members of our society while in session; also a communication from the Chicago Medical Society, extending an invitation to the members of the Arkansas Medical Society to join them on their special train to the San Francisco meeting of the American Medical Association. He also read several communications from the American Society for the Control of Cancer, and a letter from the Commission on Cancer from the Medical Society of the State of Pennsylvania, requesting that we join with them through our Journal in devoting the July number to the cancer question; also requesting that our State Society appoint a standing Committee on the Study of Cancer in our state.

Dr. Hunt: There was one letter that appealed to me particularly; that is the letter from the Pennsylvania Medical Society on the prevention of cancer. I don't know whether it will be necessary, but I will make a motion that the editor of our State Journal devote the whole space of the July number to cancer and original articles and clippings.

Dr. H. Thibault: I believe we can dispose of some very important business, and I want to make a motion in regard to the communication on the prevention of cancer, that the July number of our Journal be devoted to whatever papers may be read in this scientific session in regard to the prevention of cancer, and that the editor be requested to write a strong editorial on the effect of patent medicines and women's tonics introducing a false security in the minds of these patients which more than anything else causes delay in the treatment of cancer of the uterus particularly.

Dr. Hunt: I withdraw my motion, and second that.

Carried.

Secretary: I move that the president-elect appoint a special committee on cancer research in Arkansas, and report at the next annual meeting.

Seconded. Carried.

Dr. C. H. Cargile: All of us are familiar with the efforts being made for the relief of the profession in Belgium. I move that we donate \$200.00 to the profession in Belgium, to be done through a committee of which F. F. Simpson of Pittsburg is chairman.

Seconded.

President: The Council has to make the appropriations, and that will be referred to the Council.

Dr. Cargile: Yes. It should go that way. That is merely a recommendation.

Dr. J. O. Rush: I rise to a point of order. The motion before the house is seconded and has not been disposed of.

President: The House of Delegates has nothing to do with that.

Dr. J. T. Clegg: As I understand it, then, the Council recommends it and then the House of Delegates votes upon it.

Dr. Cargile: Let me change the motion. I move, then, that we request the Council to do this.

Seconded. Carried.

Dr. Young: I would like to read about the expenditure of money from the Constitution. "All resolutions appropriating funds must be referred to the Finance Committee before action is taken thereon." The Council has no right. I got in bad last year to the extent of \$30.00 myself on that kind of proposition, and want to keep the next man from getting in bad.

Secretary: The Council is the Finance Committee of this body.

Dr. Hunt: That's where that second motion was out of order and the first motion was all right.

SELECTION OF NOMINATING COMMITTEE.

Dr. Thibault: We have no right to select the Nominating Committee until the first day of the annual session, and it cannot be done until tomorrow. It has always been the custom of the society to name the Nominating Committee on the first day. But the Constitution says the House of Delegates shall meet one day before the general session, and especially designates tomorrow as the first day of the general session or annual session.

Secretary: That's been the custom ever since I have known anything about it.

Dr. Eberle: This is the first day of the annual session, and it has always been customary to select the committee on this day.

The following was selected as the Nominating Committee:

First Councilor District—Dr. J. C. Hughes.

Second Councilor District—Dr. L. E. Willis.

Third Councilor District—Dr. P. E. Thomas.

Fourth Councilor District—Dr. J. T. Palmer.

Fifth Councilor District—Dr. C. J. March.

Sixth Councilor District—Dr. M. L. Norwood.

Seventh Councilor District—Dr. J. B. Crawford.

Eighth Councilor District—Dr. A. L. Carmichael.

Ninth Councilor District—Dr. J. H. Fowler.

Tenth Councilor District—Dr. J. G. Eberle.

STATE BOARD OF MEDICAL EXAMINERS.

Dr. L. T. Evans: I move this be postponed until the last day of the general session to give more time. Seconded.

Dr. Young: I have been somewhat familiar with the workings of the State Board of Medical Examiners since its inception in 1903, and it has been customary up until two years ago to have the report of nominations for these positions made on the last day of the meeting of the general session. Two years ago, in some way, the report was made in the House of Delegates on the afternoon of the first day. That gave rise to a great deal of criticism because of the fact that there were a great many men who were not delegates that thought they didn't have a fair show. It is my opinion these positions should not be decided by the House of Delegates, but should be decided in the general meeting, as was the custom up until the last vacancy occurred. And I would suggest that the rule of procedure in this matter should be that this matter be left open up until the general meeting on the morning of the last day of the session, and that in the meantime the members, delegates and officers present from each congressional district go into caucus and decide upon whom they desire to be named to the governor for appointment. If you decide this matter this afternoon, you will find that the general

meeting and the membership as a whole will be very much disgruntled and be very much dissatisfied. If you give them time to caucus among themselves, you will find that they will be much better satisfied. The fact is that up until two years ago that was the custom pursued; from the beginning of this work at Jonesboro in 1903 to the present time. And there is a difference in the organization that I think a good many members don't understand. The House of Delegates' work is divided into ten councilor districts. This work is divided by congressional districts, and the society does not recognize anything concerning the congressional districts except this one thing. All this legislative work is based upon the idea of the ten different councilor districts and not upon seven congressional districts.

Dr. Thibault: Probably as far as disgruntling some candidate who is late in getting in, Dr. Young is absolutely correct. When we put this business off to the last day, the scientific activity of this body is hampered by one of the worst pieces of medical politics that ever entered the Arkansas Medical Society from the day of the arrival of the first delegates until the final report of the general session. I have been a delegate, with the exception of two years, for twelve years. The first man that speaks to me when I pin a red badge on my coat is a man that is either a candidate for a position on the State Board of Medical Examiners, or has a friend who is a candidate for it; and those men that have gotten delegate's credentials from other county societies have had identically the same experience that I have had. And if it is delayed, every day it is delayed the delegates can't attend the scientific meetings without sticking his badge in his after-pocket, because two or three friends of some man that wants to get on the State Board of Medical Examiners at \$9.00 a day are after him. And, if we had some way of disposing of this right after the House of Delegates was called to order the first day, it would relieve the scientific body of a great deal of inconvenience and it would insure about 50 per cent better attendance at the scientific sessions of this society. From a medical standpoint, I don't mean to ridicule the law or the importance of the State Board of Medical Examiners. It is a necessity, and a grave necessity. But as a disturbing element of the scientific procedure of this body, it has been a disturbance.

Dr. Clegg: How many vacancies have occurred? President: Three.

Dr. Clegg: That only involves three congressional districts. My idea is to let the members of the Arkansas Medical Society who attend this meeting from those three congressional districts select their men, with the endorsement of the House of Delegates.

Dr. Young: Let me make myself plainer. My idea is that the members from each congressional district get together in a caucus and agree upon their names to present to the general meeting, and not to the House of Delegates. It doesn't make any difference whether Dr. Thibault has got a red badge or white badge or blue badge; he has a vote in that caucus, and that's the way it was originally started. And, it is not a matter for the House of Delegates at all; it is a matter for the general membership of the congressional districts, where there is a vacancy, and they make a recommendation of three members to the general meeting. And we have, as members of the Third Congressional District, no right to go down into the Fifth Congressional District, and it is impossible to use any influence or do anything along that line. That's a matter for the Fifth or any other district where there is a vacancy to take up and look after, and the rest of us have nothing to say in the matter.

Dr. Eberle: Get something tangible before the house. Dr. Young made only a suggestion.

President: The doctor made a motion that it be deferred until the fourth day, which was seconded.

Dr. Eberle: The motion I wanted to make—of course, it is out of order, as there is one before the house—is that these selections be made on Wednesday rather than on Thursday morning; that is, that the selections be made by the congressional delegates some time on Wednesday, and that they report then on Thursday.

President: Not the delegates, but the members.

Dr. Eberle: From the congressional districts, because, if you leave it open, some will say we should meet and select our men on Thursday, and some will say we should meet and select our men on Wednesday, and some would say, "Let's select them on Tuesday." I would like to amend Dr. Evans' motion to that effect.

Dr. Evans: I accept that amendment.

Dr. Eberle: That the selections be made by the congressional districts on Wednesday and report on Thursday morning at the general session.

Dr. Norwood: I want to know whether these members are to be selected by all the members of the society from that congressional district, or is this list of names to be selected by the delegates?

President: All the members from that congressional district select the men.

Dr. Cargile: I would like to amend it, if you have not gone too far. The time of the meeting should be announced pretty early, lest there might be some dissatisfaction, as Dr. Young said. Some might say some of them didn't get notice.

President: It will be announced tomorrow at the general session again.

The motion was carried.

AMENDMENTS TO BY-LAWS TO BE VOTED ON.

President: We have some proposed amendments to be voted on at this meeting. The first is that Section 1, Chapter IV, be amended by striking out the words "before that," thus making the section read that the House of Delegates shall meet on the first day of the annual meeting instead of the day preceding, as now provided.

Dr. Eberle: I offered that amendment last year, and it was laid over under the rules. It occurred to me that the House of Delegates could get through with its business in the course of two or three hours and save the necessity of the delegates putting in an extra day away from home. Now, when I look at the long scientific program that the committee has arranged, I don't know whether it is wise to do that or not. We have spent an entire afternoon nearly in this business of the House of Delegates, and, if we are going to spend this much time hereafter in the House of Delegates, and there is no reason to believe that the time will be any less, then we would be deprived of half a day's attendance at the general session. On the other hand, the advantage that occurred to me before was that—and it was impressed on me especially at El Dorado, because it was a point that was inaccessible to most of us—it took us away from home nearly an entire week, to get there and attend the meetings and stay through it and get back. But, I don't insist on the amendment. I leave it to the house to use their own judgment.

Dr. W. A. Snodgrass: I don't think the amendment would be a good thing for the society. We had a small meeting last year. We didn't have as many members in attendance as we usually have. Down there it might work out well. I think if we let this matter stand as it is, it will be more satisfactory. It may be a little hardship on the delegates, but he

gets some honor in being elected a delegate and ought to be willing to come down and spend one more day's time. We can at least get the House of Delegates organized, and they are always one day late in getting in.

Dr. Thibault: I believe we are out of order. There is no motion before the house. In order to accomplish business, I move the adoption of the amendment. Then we can discuss its merits and demerits and vote on it and get rid of it. Until we make some motion, we will sit here all day.

Seconded.

Dr. O. L. Bourland: Like Dr. Snodgrass, I think we had better leave it the way it is. As a rule, the delegates lose a great deal of the scientific program. While we consider it of some honor, still the delegates feel like they lose so much of the scientific program, and I think it is best that we leave it like it is. I don't know the way they do in other societies in other states, and would ask Dr. Meriwether if he knows how they do in other states.

Secretary: Most of the state medical societies now have gotten their meetings down to three days, and have the House of Delegates going on at the same time that the general sessions are going on. Only practically about four states that have more than three-day sessions.

Dr. Thibault: There is one possible situation that has not been drawn out. Really, there is not a representative of the county societies in the State Society during the first day of the meeting of the House of Delegates, as it is. There would probably, under ordinary circumstances, be some interference with the scientific sessions. On the other hand, the House of Delegates might meet for two hours before or two hours after the scientific session on the first day, and possibly, by a little more work and a little more straining on the delegates, be able to accomplish its business without interfering very much with the general sessions. But, as it is, the Arkansas Medical Society is hardly said to be represented. For instance, today, even when we stick in men that happen to be present, he may or may not be in accord with the spirit of his county society when he is seated. So that we are not really representative of the whole Arkansas Medical Society on the first day of the meeting of the House of Delegates.

Dr. Eberle: It occurred to me that the House of Delegates could meet in the evening on the first day of the general session; have a night session; meet at 8 o'clock and transact our business.

President: That's good.

Dr. Eberle: In that way shorten the length of the session, and that's why the amendment appealed to me at the time. I don't know yet but what it is the wise thing to do, but I am not so sure.

Secretary: I believe it would be a good thing to adopt this, simply from the fact that we will accomplish business faster, and, as Dr. Thibault said, it will have a more representative body in the House of Delegates than we have this way, because a great many men don't come until the second day.

Dr. Bourland: I expect, after hearing the arguments pro and con, that the secretary is right. I think I have changed my mind on that.

On motion, the amendment was adopted.

Dr. Carlin: I move that this be laid on the table.

Dr. Thibault: I rise to a point of order. There is no motion before the house to lay on the table.

President: The next amendment to be voted on is that Section 5, Chapter IX, of the By-laws be amended by striking out the words "who is a graduate of a reputable medical college." This will make the section read that every reputable and legally reg-

istered physician, who does not practice or claim to practice, nor lend his support to any exclusive system of medicine, shall be eligible to membership.

Dr. S. M. Gates: I move that the words "who is a graduate of a reputable medical college" be struck out of this section as it now reads.

Seconded.

Dr. Thibault: Nothing can be done until a motion to adopt is made.

Dr. Evans: I move that this be adopted.

Seconded.

President: Now it is open for discussion.

Dr. Snodgrass: As a member of the Council for six years, visiting the different counties over the state, I am in favor of this amendment. Our state law at the present time does not admit undergraduates for examination to practice medicine. It will only be a few years until all the undergraduate practitioners will quit, and the most undesirable ones have quit practicing now. Take Perry County, for instance. There are a great many men who are doing good work there, and who are reputable citizens. They have a certain amount of influence, political and otherwise, and I don't think the society would lose anything by taking them in as members of the society at this time. There is no use in keeping up this continual fight that we have had for years and years on these fellows who have been licensed to practice medicine. The legislature did it, and perhaps they did it justly. They have been practicing medicine for a long time. The men are too old; they cannot enter a medical college and get a diploma at this time. Twenty years from now there will not be an undergraduate in the state practicing medicine. And, if we go out and refuse them membership, they are ready to cry "persecution." They have a great deal of influence. And, when the time comes for us to get medical legislation to keep out some new cult or practitioner that comes in, these fellows are not with us. We had better take them in, and let them help us fight it out.

Dr. Palmer: He brought out some good points. There is another point that might be well to consider in this thing. Some of our fee-splitters over the state in the line of surgery are drawing largely from these men on the outside of this medical society, and we have no come-back at anybody. Besides, there's lots of men in the neighborhood where they can make a living and some money, when the graduates would not wait to take that fee. I think the point of this fee-splitting proposition is still considered, because I know of these things. I know of men who are not in the medical society, nor can't get in, drawing from these undergraduates.

Dr. Cargile: I have always opposed this until now, for the reason that Dr. Snodgrass gave, that the law will eliminate them pretty soon anyway. But, in order to help a few counties in this state that seem not to have enough physicians to organize, I believe it is wise and charitable toward those counties that we adopt this resolution. We can't do much harm. Heretofore I have opposed it. (Applause.)

Dr. Thibault: It is not through enmity to any individual or to any class of individuals that I oppose this resolution, but it is for the good of the medical profession and the standing of that profession before the public that it serves that I do oppose it. Such articles and such criticisms of Bernard Shaw would never be said of a medical profession that stood up for the education of the physician. There is only one distinction between the members of the Arkansas Medical Society and those irregulars—and I say irregulars, though they are recognized by the law of the State of Arkansas—I say, the only distinction between those men who in years gone by have hung out

their shingles without ever seeing the inside of a medical college, without ever dissecting a man's body, without having studied chemistry or physiology, and the members of this society, is that what medical education was in those days. And even that small amount of medical education was neglected by those that did not graduate from some school of medicine. And every physician knows, and every layman knows, that even some of the men that graduated had a very poor chance to get a medical education, and the man who was willing to practice on suffering humanity without such a medical education as a great many of the medical colleges offered at that time is not fit to be a member of the Arkansas Medical Society. Now, I realize the ambition of the officers of the Arkansas Medical Society to swell its membership. I realize the laudable ambition of the councilors from the councilor districts to have his council make a good showing. Every man that takes a pride in the Arkansas Medical Society wants its membership to increase, but does he want to go outside of the ranks of educated physicians and pick up men? I know of men in Pulaski County who never saw the inside of a medical college and probably never saw a text-book, who have been practicing medicine since I was born. But there are a good many of them in the state and they are just as eligible under the adoption of this amendment as any other men. The ridicule of the medical profession by the public is due to a lack of education; not on the part of the public as much as on the part of the medical profession. Every medical school today is trying to raise the standard of medical education. The public demands a doctor, and not a man that simply pretends to be a doctor. A doctor is a scientific man who has spent years in acquiring a medical education. If he has the right feeling, and the only feeling that a man ought to have that takes the lives of men, women and children, of fathers, mothers, daughters and sons, in his hands, he will strain every endeavor to get what medical education offers at his time of life. If he is not the man to do that, he has not the conscience that makes him fit to take the lives of these people in his hands, and the Arkansas Medical Society ought not to sanction it. Now, you know and I know that hundreds of men pass the county board because their uncle is on the board or their father is on the board, or some good friend of the family is on the board. The boy was not fit to work on the farm, and he was too green to turn loose in the city, and they got him to pass the county board medical examination and sent him out in the backwoods to practice medicine.

Dr. Cargile: After I sat down, it occurred to me that my remarks might have been misunderstood. What I said about justice and charity, I didn't have reference to these men. I had reference to a few men who are eligible in a few counties in this state. I believe we owe it to those men to permit them to become members in order that they may organize in those counties. They will soon be eliminated by the provisions of the law. I don't know how it is in some parts, but we have about forty eligible physicians in our county, and about three who are not eligible—by reason of their not being graduates, I mean. Where I come from twenty-three years ago, there was quite a number. They are fast being eliminated, and I believe, in order to help these few men in my county, where they don't have but few members, we should do it. The man who is not trying to get a medical education should not deserve any sympathy or charity at all, and I did not have reference to him when I spoke about justice and charity.

Dr. Evans: As councilor of the Second District I had a little experience, and I have been a member of the House of Delegates when this was before it

two or three times before, and I always voted against it. I tried to organize Izard County this year, and I had a meeting. There were two graduates that met me at the county seat and I had three undergraduates. I could not organize. These undergraduates were good men. I knew they were good men all right, but could not organize because I didn't have enough. I believe if we organize Izard County and Fulton County, we are going to have to take in undergraduates. There are a few men in those counties that are good men, and I believe if we can bring them into the Arkansas Medical Society they will try to get a medical education later on. There are some of them that have been at school three years and I believe they will go on and try to finish up, because the way to teach a man is to meet him in the society and he will go about trying to learn something right straight. I know the county societies in this state are doing work in that line, and for that reason I favor this amendment.

Dr. Hunt: I want to say that I think all of us want to maintain the high standard of medicine which Dr. Thibault has mentioned. I want to say every year, as long as I have been a member of this society, I voted against this amendment, but I am for it this year. I want to speak just for my county. We have five or six undergraduates in Johnson County who would like to become members of the County Society and the State Society. I will state that we have two undergraduates who are members of the Johnson County Medical Society, and I am not sure but what they pay dues into the State Society. That is, they subscribe for The Journal. They don't pay the State Society dues. And those two fellows are the most loyal members we have. One of them lives twenty-two miles from the county seat where we meet, and if he has missed five meetings in the last six years, I haven't heard of it.

Voice: How do you know he is ever going to graduate?

Dr. Hunt: He will never graduate. He is fifty-five years old. He is a very safe general practitioner, so considered in the community where he lives; a good doctor. A graduate would not go up there; he is twenty-two miles in the mountains. He has sense enough to treat his little pneumonia and fever and chills. He has sense enough to send—he does not send to my side of the mountain, I tell you—to the other side of the mountain to some good doctor like Dr. Kirby, at Harrison, and others. He has more medical books and reads more than over half of the members present here today. I don't know how much you read, but he reads and buys books. He will never go to school again, because he has passed the age of learning new subjects. He couldn't go to school and learn chemistry. When a man passes thirty-five, I don't think he can learn chemistry. Another thing, if we take those fellows in our society, it will give them a new stimulus and will encourage them to read more, and they will learn something by coming in contact with some of the graduates. I am in favor of this amendment.

Dr. Eberle: A good many members who formerly were opposed to this amendment have experienced a change of heart, but it has not come to me, or at least has not struck me much. But there is one phase of the subject that seems to have been overlooked by the speakers that I want to call their attention to. It may be all right to speak about the old man who is too old to graduate in medicine, and who deserves sympathy, charity and aid, and an extended hand from the organized profession. But, what about the young man? If you take in any undergraduates, the young man, the young man who has taken one or two courses at a medical college, will say, "What further

is there for me to gain? Why should I go on and spend another two years and the amount of money that will be necessary to obtain a diploma, when I am just as good as anybody else, as the man with a diploma?" Now, that's a point, it seems to me, worthy of consideration. I tell you, gentlemen, the people of Arkansas respect a graduate in medicine. They respect organized medicine. And, if you lower the standard by taking in unworthy men, incompetent men, you just that much lower yourselves in the estimation of the people. I don't think it is a fair thing to say that we should take them in for their political influence. Organized medicine has no political influence with the Arkansas legislature, and I fear will not have for a long time. And, if we cannot get laws for the betterment of the people of this state by standing on an honest footing and saying to the Arkansas legislature, "We are competent to do this," we had better go on as we have been and be sat down on by the Arkansas legislature in the future. These points, it seems to me, are worthy of consideration, and for that reason I feel that I can't vote for the amendment.

Dr. Snodgrass: I think Dr. Thibault perhaps misunderstood some of my remarks. I don't believe we are putting you on an equal footing with a lower class of practitioners to take these fellows in. Each county has the right to select its own members. If he is unfit, they certainly would not elect him to membership. I don't think it would lower the dignity of the Arkansas Medical Society at all to take him in. He refers to political influences that they have. I want to inform him that if it wasn't for political influence which the Arkansas Medical Society has at this time, or has had, we wouldn't have our present medical laws, because they tried for forty years to get a state board law and get this matter worked up, and never did do it until we had a Legislative Committee from the Arkansas Medical Society that took it up and got it through. If you ever get anything through the Arkansas legislature, you have to organize and go after it.

Dr. Thibault: As a matter of history, I want to relate an experience in the Lonoke Medical Society. As a matter of forecast, I want to say that any undergraduate who ever gets into the Arkansas Medical Society, he will have to move out of Lonoke County to do it. We had a fund when our society was first organized, by which we were to hire a graduate or undergraduate physician to take charge of any man's practice in our county who would go off and get a medical education, and he was instructed to account to him for every cent he collected until he came back. One man left that county to go off and get a medical education, and we hired a man to hold his job for him, and he went to Tennessee and took a firm practice and never returned to the county, and that's the only man that ever made a move to accept our offer, which is open right now.

The vote in favor of the amendment was 22, and against was 16. Not receiving a two-thirds vote, the amendment was declared lost.

Dr. Snodgrass: I would like to reintroduce this amendment to be voted upon next year.

Dr. Thibault: As a point of order, the same amendment can't be introduced at the session at which it was lost. He will have to get up a new amendment, worded differently.

President: I so rule. You can introduce that tomorrow.

Dr. Thibault: Tomorrow is a part of the same session. He will have to word it differently.

Dr. Snodgrass: I will word it differently.

Adjourned.

HOUSE OF DELEGATES.

THIRD DAY—MAY 5, 1915.

9 O'clock A. M.

Report of Board of Visitors to the Medical Department of the University of Arkansas referred to Committee on Resolutions:

REPORT OF COMMITTEE TO VISIT THE MEDICAL DEPARTMENT OF THE ARKANSAS UNIVERSITY.

Mr. President:

We, the committee appointed by you to visit the Medical Department of the Arkansas University, wish to submit the following as our report:

May 3d we visited the college building, and from the registrar, F. S. Overton, we found from the daily records as kept there by him, the Section of Surgery showed that there should have been the following number of hours by the teachers of the Surgical Section:

Name.	Hrs. to Be Given.	Hrs. Given.
Dr. J. P. Runyan.....	60	43
Dr. Carl E. Bentley.....	60	59
Anderson Watkins	30	24
W. A. Snodgrass.....	60	48
Homer A. Higgins.....	30	27
Dr. Stanley M. Gates.....	30	4
Dr. Chas. S. Holt.....	30	30

SECTION OF MEDICINE.

Dr. A. E. Harris.....	60	50
Dr. O. K. Judd.....	60	56
Dr. Henry Thibault.....	30	29
Dr. R. C. Kory.....	30	8
Dr. Morgan Smith.....	162	142
Dr. J. W. Falisi.....	30	5
Dr. C. W. Garrison.....	30	10
Dr. G. Sciaroni.....	30	30
Hon. R. L. Floyd.....	30	27
Dr. J. B. Dooley.....	90	18
Dr. Cowley Smith Fettus.....	30	30
Dr. R. F. Buckley.....	15	15
Dr. Ida Joe Brooks.....	12	12

SECTION OF PEDIATRICS.

Dr. Morgan Smith.....	30	29
Dr. D. R. Hardeman.....	30	30

SECTION OF NERVES AND MENTAL DISEASE.

Dr. D. W. Roberts.....	Full time	Full time
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SECTION OF DERMATOLOGY AND SYPHILOLOGY.

Dr. W. R. Bathurst.....	60	58
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SECTION OF MATERIA MEDICA AND THERAPEUTICS.

Dr. C. E. Witt.....	60	53
Dr. Chas. R. Chestnutt.....	30	3
Dr. A. M. Zell.....	30	14

SECTION OF OBSTETRICS.

Dr. J. C. Cunningham.....	90	65
Dr. O. A. Carruth.....	90	89

SECTION OF OPHTHALMOLOGY, OTOLGY, RHINOLOGY AND LARYNGOLOGY.

Dr. F. Vinsonhaler.....	60	51
Dr. Robert Caldwell.....	30	28
Dr. John G. Watkins.....	30	29
Dr. Thos. H. Cates.....	60	36
Dr. W. T. McCurry.....	60	12
Dr. C. N. Pate.....	30	9
Dr. E. M. Hudson.....	30	4

SECTION OF GYNECOLOGY.

Dr. M. D. Ogden.....	30	25
Dr. Oscar Gray.....	30	25
Dr. Robert L. Saxon.....	30	26

SECTION OF GENITO-URINARY DISEASES.

Dr. Anderson Watkins.....	30	24
Dr. S. P. Bond.....	150	108

In the department of Freshman and Sophomore Class and all laboratory work, the lecturers state they put in full time. They have no records. Some of them claim to have put in a good deal more time than was assigned to them.

That the profession might be impressed with the importance of a more thorough course in our university, we would refer you to the last State Board statistics of 1914, which shows that students from this university before our

State Board of Examiners had 6.7 per cent failures, and students from this university in other states' examinations show 33 1/2 per cent failures. As to the standing of this university, we would refer you to the A. M. A. Journal of April 24, 1915, page 141.

We would also state in conclusion that the registrar, Mr. F. S. Overton, claims for the lecturers who had lost hours, that they had substitutes, and in some instances gave more time than required.

Respectfully submitted,
R. C. DORR, Chairman,
R. A. HILTON.

REPORT OF COMMITTEE ON NECROLOGY.

Your Committee on Necrology has endeavored to collect data concerning all members deceased who died during the past year, and beg leave to report as follows:

DR. JOHN C. AMIS.

Dr. John C. Amis, age 55 years, one of the most widely known physicians in Arkansas, and known as the "friend of orphans," died at his home in Fort Smith, October 15, 1914. His last request was that the inmates of the Orphans' Home attend the funeral in a body. He had served them free of charge for more than sixteen years. Dr. Amis was a very energetic and highly esteemed member of the Arkansas Medical Society.

DR. J. M. KELLER.

Dr. J. M. Keller died May 27, 1914, at his home in Hot Springs. Dr. Keller was an ex-Confederate soldier and for many years a prominent figure in the United Confederate Veterans' circle. He served in the Medical Department of the Confederate Army throughout the war between the states. Dr. Keller was born in Alabama, and received his medical education in Louisville, Ky. He then moved to Hot Springs, Ark., in 1877. Keller Chapter, U. D. C., of Little Rock, was named in his honor.

DR. WILLIAM CRUTCHER.

Dr. Crutcher died at his home, 805 Pine Street, Pine Bluff, May 22, 1914. He was born at Richmond, Ky., December 31, 1866. He was educated in Central College, Danville, Ky., and Central University, Richmond, Ky. He later graduated with honors at the Philadelphia College of Pharmacy. After pursuing the drug business for a short time he returned to Philadelphia and entered Jefferson Medical College, where he also graduated with honors in 1896. He practiced for several years in Forrest City and later moved to Pine Bluff. On September 22, 1897, he was married to Miss Edna Pearl Mann, who with two daughters, Misses Virginia and Evelyn, survive him.

DR. E. K. WILLIAMS.

Dr. Williams, age 54 years, died at his home in Arkadelphia on September 11, 1914. Dr. Williams had practiced in Arkadelphia for twenty-four years. He was born in Brownsville, Tenn., in 1860, educated in the University of Tennessee, and took special work in hospitals in Europe. He was a member of the Methodist Church and of the Elks Fraternity.

DR. RUDOLPH FROELICH.

Dr. Froelich, age 37 years, died very suddenly at his home in Stuttgart on September 25, 1914. He was born in Baden, Germany, and practiced there for several years before coming to America, about ten years ago.

DR. BARNARD H. GALLIGHER.

Dr. Barnard H. Galligher, age 51 years, died at his home in Pine Bluff, June 27, 1914. Dr. Galligher received his medical education in the Memphis Hospital Medical College and in Missouri Medical College, St. Louis, later taking post-graduate work in Chicago and New York. He was married in 1883 to Miss Ella Roberson of Thornton, Ark. He leaves a wife, two daughters and two sons.

DR. CHARLES FEATHERS.

Dr. Charles Feathers, age 32 years, died at his home in Farmington, July 13, 1914.

DR. WM. H. VERMILLION.

Dr. Wm. H. Vermillion, age 71 years, died at his home in Bigelow, Ark., December 11, 1914.

DR. DANIEL N. FISHER.

Dr. Daniel N. Fisher, age 69 years, died at his home in Benton, Ark., February 25, 1915. Dr. Fisher was born in Posey County, Indiana, November 10, 1845. He came to Arkansas in 1870, and in 1873 he was married to Miss Mary I. Graham, daughter of Dr. A. J. Graham. He was a graduate of the Medical Department, University of Ark-

ansas, 1892, and was the oldest physician in point of service in Saline County.

DR. GEORGE W. HUDSON.

Dr. George W. Hudson, age 75 years, died at his home in Camden, Ark., August 24, 1914.

DR. SIDNEY J. WEAVER.

Dr. Sidney J. Weaver, age 40 years, died at his home in Fulton, Ark., August 29, 1914.

H. H. NIEHUSS, Chairman.

REPORT OF COMMITTEE ON MEMORIAL TABLET IN MEMORY OF DR. JOHN S. SHIBLEY.

Mr. President:

We, the committee on the memorial to the late Dr. J. S. Shibley, beg leave to report that it has not been feasible to have a full meeting of the committee until this session of the State Society. The chairman has obtained designs and prices and will submit them to the committee during this meeting, and the work of the committee will be finished in the near future.

Respectfully submitted,

L. P. GIBSON, Chairman.

Secretary: In view of the fact that this committee has not yet succeeded in doing their work, I move that this committee be continued.

Seconded. Carried.

President: We will now have the reports from the three congressional districts as to their selection of candidates for appointment on the State Board of Medical Examiners:

Dr. Rider: I report for the First Congressional District: Dr. W. H. McKie, Wynne; Dr. J. A. Bogart, Forrest City; Dr. R. Q. Patterson, Augusta.

Dr. Archer: For the Fourth, I report: Dr. F. T. Isbell, Horatio; Dr. A. T. Hogue, Fort Smith; Dr. D. W. Goldstein, Fort Smith.

Dr. Clark: I report for the Fifth: Dr. A. L. Carmichael, Little Rock; Dr. W. F. Smith, Little Rock; Dr. C. D. Clark, Morrilton.

On motion, the House of Delegates adjourned.

HOUSE OF DELEGATES.

FOURTH DAY—THURSDAY, MAY 6, 1915.

MORNING SESSION.

Called to order at 9 a. m., President Cooper in the chair.

Owing to a misunderstanding as to the meeting hour, a full attendance was not in evidence. Roll call showed the lack of a quorum.

Adjourned to 1 p. m.

FOURTH DAY—THURSDAY, MAY 6, 1915.

AFTERNOON SESSION.

Called to order at 1:20 p. m., Dr. St. Cloud Cooper presiding.

Roll call showed forty-six delegates present, out of a possible fifty-nine.

Committee on Medical Legislation submitted its report:

REPORT OF THE LEGISLATIVE COMMITTEE OF THE ARKANSAS MEDICAL SOCIETY.

We beg to submit the following report of the Legislative Committee:

Prior to the convening of the legislature of 1915, the Legislative Committee held a number of meetings and formulated plans of action.

Our first effort was made to secure a new medical practice act, upon which would be represented the various reputable schools of medicine. A conference was held with the leading representatives of the eclectic and homeopathic schools, and an attempt made to secure a basis of representation of each school upon this bill. We failed in this effort because of the fact that these two schools demanded a majority membership, which we did not feel called upon to concede, in view of the fact that the regular medical profession so far outnumbered them, and as we felt had done so much more to advance the true interests of the state.

Having failed in this effort, we again had a conference with some leading representatives of other schools and agreed upon a new bill to be introduced, which would greatly improve the present law and still retain the three boards as they now exist.

This bill was introduced by the chairman of this committee, Dr. Horace E. Ruff, and would have passed easily, because of the fact that there was absolutely no opposition to it, except for the fact that it was lost in the rush of legislative business. The consequence is, that the medicine practice law remains as it was.

It is the opinion of this committee that two years hence it will be possible to meet the two other schools of medicine, and probably the osteopaths, upon a basis that will be satisfactory to all, and one that will guarantee that the four different schools of medicine will be placed upon a basis requiring a thorough knowledge of the fundamental facts of medicine.

We regret very much to report that the chiropractors succeeded in getting a bill that established a board to license them to practice in this state. The optometer bill was also passed.

In this connection, the committee wishes to extend to the Hon. Hal Norwood, late attorney general, their sincere thanks for his cordial and hearty co-operation. Mr. Norwood did this work because of his interest in the medical profession, and without promise of pay, it being definitely stated to him that it was altogether probable that he would get no remuneration for his trouble; but notwithstanding this, he met a number of times with the committee and with the joint meetings with the committees from the other societies, and drafted the two bills above mentioned.

The committee recommends that the Council be authorized to extend to Mr. Norwood a suitable honorarium for his services, the amount to be determined by them after a careful investigation of the work done by him.

Respectfully submitted,

F. B. YOUNG, Chairman.

Dr. F. B. Young: I want to make a statement about the fate of that bill. It would have been passed easily if it had not been lost in the shuffle incident to the closing days of the session. There was a decided opposition developed soon after it was introduced. Some of the members seemed very much interested and obstructed its passage in every way possible by referring it to committees and resorting to all sorts of parliamentary procedures to keep it from receiving consideration. I have heard that Senator Futrell stood on the floor of the House and opposed it vigorously, railed against organized medicine, and said that the medical profession had got more than they were entitled to anyway.

There was no opposition to the bill on the part of any physician, so far as I know. I regret exceedingly that we were not able to put it through, as it would have been a great improvement over our present law.

Dr. Meriwether: There is one point I would like to mention in regard to this report. General Norwood was a member of the legislature in 1903, when the Arkansas Medical Society got its first bill through. He was the man who did the work. As attorney general he supported the State Board of Examiners and succeeded in sustaining our rights through the Supreme Court ruling that we could revoke the licenses of the advertising quacks in our state. He has always been a friend to organized medicine, and to my knowledge worked two weeks on the bill which was introduced in the legislature this time, going over the laws of the various states to get a working knowledge of the whole matter before attempting to formulate a bill to suit our requirements. In these two weeks he accumulated a lot of valuable information which will be to our advantage in the future. General Norwood has never received anything except gratitude and thanks from our society; but if there is any man in the great State of Arkansas to whom the medical profession owes anything outside of its own membership, it is General Norwood. I move you, Mr. Chairman, that we reward him to some extent for his excellent services, as the House of Delegates may see fit.

Dr. Thibault: I am sure we all appreciate most cordially the valiant services of General Norwood;

but it seems to me should he ever have occasion to work for the bill in coming years, and the fact is developed that he has received an honorarium from us, it would at least place him in an embarrassing position. Our thanks are due to General Norwood from the fact that he has worked from a sense of duty to the State of Arkansas and not for an honorarium. His position as an advocate for our rights would be a great deal stronger and decidedly freer from suspicion if he had never received any financial compensation. This information in unfriendly hands, should it ever come up, would be quite embarrassing to both him and to us. The fact that he had received an honorarium from the Arkansas Medical Society would surely handicap his efforts in our behalf. Such debts as that cannot be paid in money. Honest politics pays its honest workers in a sense of duty done. The welfare of the commonwealth should be the aim and object of our lawmakers; and the representatives of the people, the same as any other of our citizens, should realize that this work pays for itself in the satisfaction of knowing that it is good work well done for the good of the whole people.

Dr. Meriwether: I think Dr. Thibault is laboring under a misapprehension. We are not desiring to pay General Norwood for any service he rendered to the Arkansas Medical Society while he was a member of the legislative body, nor as attorney general. For the past three years General Norwood has been in private life and devoting his time to the practice of law, and it is for work done as attorney for the Committee on Medical Legislation in perfecting the bill introduced by us into the last legislature, as I have stated before. I therefore move that the sum of one hundred dollars be voted General Norwood as an honorarium.

Dr. Cargile: I second the motion.

Dr. Snodgrass: This seems a good opportunity to show our appreciation for good services rendered to our society at the time when we needed a friend. I believe it would be a good move on our part to offer General Norwood some compensation in token of our esteem and sense of obligation for his good offices in furthering our interests to the extent of his ability. We should tender this not as a political reward, but in consideration of the time and trouble and painstaking and laborious effort in helping out a good cause. I am in favor of making the honorarium as large as our financial condition will permit. I would suggest not less than one hundred dollars, if we have that much surplus in our treasury.

The motion being put, it carried unanimously.

The Committee on President's Annual Address submitted its report through Dr. Bathurst, chairman. On motion, it was received and accepted and ordered filed.

We, your Committee on President's Address, report as follows:

We commend the high moral, ethical tone of this able address, and especially endorse the recommendations for an appropriation for the State Board of Health and Tuberculosis Sanitarium, and request our Committee on Medical Legislation to work to secure an ample appropriation by the next legislature. We heartily endorse what the president says about the home for feeble-minded and epileptics, and as soon as the state's financial condition will permit, we think such a home should be built. There is nothing in the entire address that appeals to us so strongly as the recommendation for State Charitable Hospital, and all should work together to that end.

WM. R. BATHURST, Chairman,
M. L. NORWOOD, Secretary,
L. E. WILLIS.

The Chair: We will now have a report from the Reference Committee.

We, the Reference Committee appointed by the president, beg leave to report that we have examined the report of the Committee on Scientific Program and the report of committee visiting the Medical Department of Arkansas

University, and that we approve said reports and think that at the present we should not offer any suggestions.

O. M. BOURLAND, Chairman.

Dr. Snodgrass: I would like to offer as an amendment a supplemental report showing the hours required to be filled and the number that were filled. Secretary reads.

Dr. Eberle: I would like to know if that does not conflict with the report of the Board of Visitors of the Arkansas Medical Society?

Dr. Snodgrass: I understand that the committee that investigated the school would not consider as filled, hours which were taught by a substitute; and any teacher who failed to fill his hour, the hour was lost, although he might have filled more hours than were required in the schedule. If I were called out of town on an urgent case, and I asked some surgeon probably more competent than I am, to fill the hour during my absence, the committee does not consider the record is satisfied.

Dr. Eberle: I do not find in the report any evidence of unfriendliness to the school. The committee appointed by our House of Delegates has visited this school and turned in its report, which has been accepted and referred to the committee for report, and it seems to me this action would be an interference and discourtesy to them. I am opposed to the adoption of the amendment as a supplemental report.

Dr. Thibault: I believe that Dr. Eberle is eminently right in opposing the proposed amendment. To my mind the point is well taken. This committee has reported to this society and completed their work. The president would not have appointed them upon that committee unless he had faith in their justice and sense of fairness in regarding their findings. This supplemental report has no connection with their report in regard to the number of hours the professors had contracted to fill and the number of hours actually filled, and the number of hours temporarily filled by others in their place. I believe it would be a discourtesy to that committee, especially in their absence, to tack any tail onto their kite. I move the adoption of the report rendered by the committee, and that the supplemental report be laid on the table.

The motion being seconded and put to vote, it carried.

Dr. Snodgrass submitted report of the Council.

REPORT OF THE COUNCIL TO THE ARKANSAS MEDICAL SOCIETY, MAY 5, 1915, BY WM. A. SNODGRASS, M. D., CHAIRMAN.

Gentlemen of the Arkansas Medical Society:

It affords me great pleasure as chairman of the Council of your society, to report that the membership is larger this year by over one hundred than ever before. All members of the Council have endeavored to increase the membership in each county in his district where a county medical society had existed previous to this year. Several new county societies have been organized since our last convention. The members of the Council regret that every county in the state is not organized, but the transportation facilities are so poor in some of the counties that a county organization cannot be kept up until the roads are improved. Since the passage of the State Board of Health law two years ago and the creation of a county health officer in each county in the state, the physicians of the state have taken greater interest in their county medical societies.

We strongly recommend that the members of this society take a deeper interest in the department of health of this state, use their personal influence with the representatives from their counties to the legislature to support this law and make sufficient appropriations for its enforcement.

We are very proud of our Journal, The Journal of the Arkansas Medical Society. Under the able editorial management of Dr. W. R. Bathurst it compares favorably with any State Journal in the Union. We commend him for his able management, especially for the financial management, whereby he has collected enough clean ethical advertising matter to aid largely in paying the expense of printing The Journal.

We wish to extend our personal thanks as Councilors to Dr. C. P. Meriwether, your secretary, for his many courtesies to us, and especially for the neat and orderly manner in which the society's records and books are kept.

We have audited the books of the secretary and treasurer and find their accounts correct and in full accordance with their reports submitted to you.

We recommend that the following amounts be paid from the funds in the hands of the treasurer:

Wm. R. Bathurst, editor.....	\$500.00	
Stenographer	120.00	
Postage	63.19—\$	683.19
C. P. Meriwether, secretary.....	\$500.00	
Stenographer	50.00	
Telephone, telegrams, and stamps.....	43.75—\$	593.75
J. T. Clegg, councilor.....		20.00
C. A. Archer, councilor.....		10.00
W. A. Snodgrass, councilor (chairman).....		62.04
L. T. Evans, councilor.....		6.00
H. L. Norwood, honorarium.....		100.00
Belgium fund		50.00
State Secretaries' Association.....		50.00

We suggest that \$80.00 be appropriated to pay the bills incurred by the Pellagra Commission.

We find a small amount due the society from advertisers, which we turn back to the editor for collection.

Very respectfully submitted,

WM. A. SNODGRASS, M. D.,
Chairman of the Council.

Dr. Snodgrass: In most of the districts very good work has been going on and the membership has been kept up. Some of them, however, report that they have lost a few members. A few counties have failed to make any report. Owing to the fact that the State Society has had a smaller attendance at this meeting than usual, the Council has been rather slow in making its report. We have written several letters to the different councilors, but have not received much encouragement nor succeeded in arousing much enthusiasm in medical matters. We hope that the new Council, when the members are elected, will take more interest and exhibit a little more energy in the work of the Council. If you have not a councilor in your district, or your county is not organized, take the matter up with our secretary and see what can be done to forward the good work and endeavor to develop some activity along helpful lines.

On motion, the report of Council was received and accepted.

The Reference Committee reported the findings of the Committee on Necrology and report of Committee on Program, which were ordered filed.

Dr. Snodgrass offered a resolution in regard to the expense incurred for pellagra survey authorized at last meeting of the society.

It was evidently the intention of this society last year to finance a pellagra survey of this state, but through an error in management at the El Dorado meeting, money was not legally appropriated for the purpose. Before realizing this, the Pellagra Commission had expended about eighty (\$80.00) dollars in the purchase of a filing system and the printing of suitable blanks in the use of the work.

When it was found that the society money could not be used, Dr. Young, as chairman, and Dr. Sparks, as secretary, provided this indebtedness and are still carrying it; therefore, be it

Resolved, by this House of Delegates, that the Council be instructed to secure an itemized statement of the expenditures made, and to pay this indebtedness.

Dr. Snodgrass: I make a motion that this appropriation be voted upon now by the House of Delegates. I am in favor of allowing this claim.

Dr. Meriwether: At the El Dorado meeting this resolution was not introduced in the House of Delegates, but was introduced in the general session and passed upon there. Now, the general session has no right to make any appropriation, and I have refused to pay it or issue a voucher for it.

Dr. Caldwell: I second Dr. Snodgrass' motion. I believe this matter of eighty dollars should be settled and the committee reimbursed for cash advanced.

The motion being put, it carried.

The secretary read a resolution authorizing the appointment of a committee to erect a suitable monu-

ment in Little Rock to indicate the spot where the first legalized dissection took place after the enabling act was passed by the legislature in April, 1873.

Whereas, The first legal dissection of a human body in this state was performed at a time and place and under circumstances still well remembered; and,

Whereas, It is a fact that all historical events should be properly remembered; therefore, be it

Resolved, By the House of Delegates of the Arkansas Medical Society, that the president be authorized to appoint a committee of three, of which Dr. James H. Lenow be chairman; and be it

Resolved, That this committee be authorized to spend a sum not to exceed two hundred (\$200.00) dollars to place a suitable memorial tablet to commemorate this event.

On motion, the resolution was tabled.

Dr. Moulton offered the following resolution:

Resolved, That the Committee on Scientific Program be instructed to accept only papers of a distinctly scientific character to be read at our annual sessions; that titles sent to the committee for acceptance must be accompanied by a brief abstract; and that the number of papers be limited to forty-five, of which five may be by invitation.

Dr. Moulton spoke in support of the resolution: Some parts of the program this meeting were not very scientific. One doctor exhibited a few of his patients to emphasize forcefully the success of his treatment and showed photos of their dilapidated appearance. "See what they were before they met me; now see what fine-looking fellows they are!" There is nothing scientific about that. Then the committee cannot judge of the character of a paper unless it is accompanied with some outline of how the subject is going to be treated; therefore, I submit that the titles are not enough. The papers should have a brief abstract before they are considered for a place on the program. Our program was so long this time it was utterly impossible to follow it out properly and enjoy the discussions of the subjects. We will all agree that the chief benefit of a paper read in a scientific body to the members is a full and free discussion. It does not make much difference whether a paper is read or not, if you know the essential things that are contained in it; it is the discussion that comes out that instructs us all; that is what a paper is read for. But if you have too many papers, the discussion must be limited or eliminated altogether. It is utterly impossible to dispose of more than fifteen papers in a day, and that is really too many.

Dr. Meriwether: I would like to amend that resolution by saying that the papers be limited exclusively to members of the Arkansas Medical Society.

On motion, the amendment was tabled.

Dr. Bourland endeavored to call up the original resolution, but Dr. Thibault pointed out that tabling the amendment tabled the resolution also.

The secretary explained that under Roberts' rules of order, by which the House of Delegates is governed in its deliberations, provided that the tabling of an amendment had the effect of tabling the original, and the chair so ruled.

No further business appearing, the House of Delegates, on motion, adjourned and the general session was called to order.

THIRTY-NINTH ANNUAL MEETING.

GENERAL SESSION—FIRST DAY.

Tuesday Morning, May 4, 1915.

Called to order at 9:55 a. m., Dr. St. Cloud Cooper presiding.

Prayer by Rev. John Van Lear:

Almighty God, our Heavenly Father, we bless Thee for this day, with its comforts and its mercies. We thank Thee for its privileges of knowledge and of service. We glorify Thee as the God of light, who lightest every man that cometh into the world. We recognize Thee as the infinite source of all intelligence. We thank Thee for the great progress of medicine. We thank Thee for Thy Son Jesus Christ, who ministered unto diseases, and laid His

hand in healing and blessing upon those who were sick. We thank Thee that He combined the work of healing the body with ministering to the soul, and so set a high example for us to follow; to deal with the human body as the dwelling place of the infinite spirit of mankind, made in the image of God.

We pray Thy blessing today, our Father, upon this convention, upon these men and their work; and we pray Thee to give them success in all of their endeavors. Bless, we pray Thee, all the means that are being used for the promotion of science and public health. We pray Thee to prosper every good word and work. May Thy blessing be upon our city and upon our state, upon our nation, upon our mayor, upon our governor, our president, our rulers and all who are in authority. We pray that in return for all the manifold tokens of the favor of God, we may live the quiet, peaceable life in all godliness. We pray for the world and its sin and common vices. We pray that Thou wouldst bring peace to the troubled world. We pray for the physicians and surgeons and nurses of the Red Cross who are on duty in the field of battle. We pray that Thou mayest give them strength to serve humanity.

Hear us in our supplications; forgive us all of our sins, accept of ourselves and of the work we do, in Jesus' name. Amen.

Address of welcome, by Mayor Chas. E. Taylor:

Mr. President and Members of the Arkansas Medical Society, Ladies and Gentlemen:

The people of the city of Little Rock, speaking through the man who temporarily occupies the position of mayor, are delighted to have the opportunity of extending a welcome at this time to the members of your society and to your friends. We welcome you because of the important mission on which you have come, the enthusiasm you have shown in promoting its success in the localities from which you come, the responsibility of the position to which your profession and your earnest work entitle you. When you come to the capital city for the purpose of discussing matters peculiar to your work and the problems which confront you, we feel that you should be greeted with a double portion of welcome, because of the good work that you have done, and because of the fact that you are fitting yourselves so that you may do better work, and because of the fact that while you are striving for a more efficient and better profession from day to day, you are also bringing to the homes of men and women better physical conditions, so that they may be improved, so that they themselves may in turn be more efficient.

I think it was a happy thought on the part of the committee which selected for your meeting place this building which was so long used as a house of worship by the First Presbyterian Church, because, perhaps, more nearly than any other profession, you men of the medical profession meet the problems of life most frequently in the hour of profound extremity; because I feel sure that doctors, as well as mayors, sometimes feel that they have gone just about as far as they can on their individual resources, and you feel the need of the directing hand—of a power that is greater than yours. As you reverently ask for guidance you feel that you are after all but the instrument.

You know that science and religion are getting closer together. Perhaps science is becoming a bit more humble and perhaps religion a bit more conciliatory; but it is become more and more evident every day, and I believe we are all coming together on this statement, that the truth of God is the only truth that men of science, that men of religion can recognize, or then we have missed one of the fundamentals.

Now, gentlemen, do not work all the time in your convention. Work hard while you are at it, then stop and take a little relaxation. Come out to our baseball grounds and witness the game this afternoon, root for the home team. You know Little Rock owes all that it has to Arkansas; Little Rock is the only town in our state that is in the Southern League; so that is due from the citizens of Arkansas to come out and encourage and help our boys with the game. Right now is the time when the boys need your help. They are down at the bottom of the list. If you don't watch the game, they may lose! Above all, remember that the Little Rock team is your team, and that while you are out there enjoying the sport, you are also endeavoring to bring about success to your own and our own Arkansas team.

Ladies and gentlemen, I desire to emphasize how delighted we are to have you with us, and to say that we hope you will continue to visit us from year to year, and we hope the time will never come when we shall not appreciate your presence, or that every one of you is not thoroughly welcome in the capital city of our great state. (Applause.)

Address of welcome on behalf of the Pulaski County Medical Society, by Dr. J. B. Dooley:

Mr. President and Members of the Arkansas Medical Society:

On behalf of the Pulaski County Medical Society, I welcome you to the capital city of our grand old commonwealth.

Doubtless each and every one here this morning joins heartily in the hope and desire that this, the thirty-ninth annual meeting of the Arkansas Medical Society, may be the best yet held; that we may all return to our labors better fitted for successful work, with a broader view of life and a stronger determination to aid in the general advancement and progress of our beloved profession, strengthened and equipped by the ideas advanced and the problems discussed in the papers presented.

We of the Pulaski County Medical Society look forward with much pleasure to these meetings, for it means that we are to meet old friends again, to acquire new ones, to hear the able discourses and valuable ideas of our brother physicians all over the state, as well as from other parts of the country. It means a drawing closer together of brother physicians and closer fraternal touch.

We are proud of our capital city, with its hospitals, the medical college, libraries and other splendid public buildings, its paved streets and lovely homes. We feel that Arkansas has made our city, and as loyal Arkansans you are more than welcome to enjoy these things with us; and, as our mayor had just told you, we trust that the time will never come when you are not welcome. Come back again; come as often as you may, stay as long as you may, enjoy the meeting to the fullest extent. The mayor has extended to you the freedom of the city. I extend to you the courtesies of the Pulaski County Medical Society. Visit our medical library, the Carnegie library, the hospitals and public buildings. You are welcome at them all.

In closing, permit me to express the wish that this meeting may be the most pleasant and beneficial ever held by the society, and may we hope that it will not be long till we shall again have the pleasure of greeting you and bidding you welcome to our capital city.

Response to address of welcome, by Dr. J. B. Roe of Newark:

Mr. President, Ladies and Gentlemen of the Pulaski County and State Medical Societies:

It is my pleasant lot to attempt to express the sincere appreciation of the State Medical Society of the cordial welcome that has been extended to us by the Pulaski County Medical Society through its president, Dr. Dooley. We realize the fact that through time-honored custom these welcome addresses have come to take their place upon the program of every public gathering, but we, the members of the Arkansas Medical Society, are going to assume that the welcome address upon the present occasion is not a mere formality, but that Dr. Dooley has truly and faithfully expressed the feelings and sentiments of the Pulaski County Medical Society, and that for the time being, Little Rock, Pulaski County and all the good things contained herein are ours and yours to be used to our mutual advantage.

We appreciate fully the opportunity of coming together in this, the "Convention City of the South," of partaking of your true Southern hospitality, and of deliberating with you upon those things concerning the welfare of our profession. Many of us are from the smaller towns and rural districts of our great state, and therefore we do not ordinarily have the advantages of our city cousins, and if at any time we should appear verdant from the questions we may ask, assure you of the fact that we appreciate our condition, and are willing to draw aside the curtain and expose our shortcomings in order to gain some useful information to take back to our homes for future use.

We are doubly glad to be with you at this time and in this place. First, because Pulaski County is the wealthiest county in the state, and besides containing some of the foremost men of the medical profession, it is the home of our State Capitol. We have a feeling of common interest and mutual ownership in the City of Roses.

We realize the fact that whatever tends to build up Pulaski County and Little Rock builds up and advances the State of Arkansas. Whatever is to your interest, gentlemen of the Pulaski County Medical Society, is also to the interest of the Arkansas Medical Society, and it is for that reason, if for no other, that a closer relationship might be cultivated between the doctors throughout the state, and that everyone who seeks to relieve the aches and pains of afflicted mankind might fully appreciate the fact that the interests of the entire state are as closely related as is that of the human body. When this fact has fully dawned upon the doctors of our state, then, and not until then, will the general public come to realize the same fundamental truth. When the people of the country have realized that the country and the city are mutually dependent, one upon the other, that the country has an interest in the city, and the city has an interest in the country, that labor has an interest in capital, and that capital has an interest in labor, then will we see a marvelous improvement in the political and social conditions of our state. We will see that the men who make our laws, the men who interpret our laws and the men who enforce our laws will all take a broader view of the situation confronting us, and selfishness will be reduced to a minimum. The accomplishment of this supreme aim depends to a large extent upon the physician. To the one man that goes into the many homes and comes in closer

contact, perhaps, with the true conditions that surround the people of the different communities. It is for these many reasons that we meet together on stated occasions and we each and severally owe a debt of gratitude to those who make these meetings a success through their hospitality.

Mr. President, we are extremely glad to be with you as guests of the Pulaski County Medical Society, because many of the members of our State Society spent many years of their toil and labor in your midst. We appreciate the fact of again being in your city and meeting again with the leaders of our profession—of meeting the men who have been the guiding star of so many of the young men in Arkansas who are so nobly striving to elevate the profession which they have chosen as their life work. We are glad to mingle again with you, to shake your hand and to gather the words of wisdom as they fall from your lips. But as we search for some of the familiar faces of bygone meetings, we sadly miss many of those of your honored members who for years stood heart to heart and hand in hand with every proposition calculated to elevate or better our profession.

Words fail me, Mr. President, to fully express the feeling of joy and gladness that it affords us to be here, honored guests of the Pulaski County Medical Society, because we know that we are destined to gain some useful information that will prove of lasting benefit to the State Medical Society; and, too, we believe that the Pulaski County Medical Society may gain something in return from its association with us. We do not wish to be the recipient of all the good, but are desirous of at least making a fair exchange and giving as much as we receive.

In view of the fact that this meeting is one from which all in attendance expect to receive valuable information, and as there is a regular program prepared, and in view of the fact that I have never been accused of possessing any oratorical proclivities, will close my remarks by thanking you, one and all.

Dr. Warren of Black Rock was called to the chair and the president delivered his annual address.

Published on first page.

On motion the president's address was referred to the committee selected by the House of Delegates, Dr. W. R. Bathurst, chairman; M. L. Norwood and L. E. Willis.

Announcement made by secretary.

Secretary: At the meeting of the House of Delegates a resolution was introduced and adopted by the House of Delegates that the selection of members for the State Board of Medical Examiners, of which there are three vacancies—one in the First, one in the Fifth and one in the Fourth Congressional District at this time—would be made by all the members from those congressional districts, and at some time during today they would get together and caucus and make their selections and report to the meeting of the House of Delegates, which will take place tomorrow morning at 8:30, just prior to the meeting of the scientific session. I make this announcement at the request of the president, so that all members of the Arkansas Medical Society from the congressional districts in which the vacancies take place may get together and caucus and instruct their delegates how to vote on the selection of three men from each district for the State Board of Medical Examiners.

GENERAL SESSION.

THURSDAY AFTERNOON, MAY 6, 1915.

Called to order at 2:30 p. m., President Cooper in the chair.

The secretary read telegrams from the mayor of Fort Smith, the Business Men's Club, the Hotel Goldman, and the Noon Civics Club, extending a cordial invitation to select Fort Smith as the next meeting place of the society.

The secretary also read a telegram from Dr. Kosminsky of Texarkana, in behalf of the medical societies of both states, inviting the State Medical Society to meet in Texarkana in 1916, with assurance of a warm welcome.

The secretary read the report of the Nominating Committee:

REPORT OF NOMINATING COMMITTEE.

For President—G. A. Warren of Black Rock, J. C. Wallis of Arkadelphia, G. S. Brown of Conway.

For First Vice President—C. J. March of Fordyce.

For Second Vice President—F. T. Murphy of Brinkley.

For Third Vice President—O. M. Bourland of Van Buren.

For Treasurer—Wm. R. Bathurst of Little Rock.

For Secretary—C. F. Meriwether of Little Rock.

For Councilor First District—F. L. Nelson of Corning, Clay County.

For Councilor Third District—H. H. Rightor of Helena, Phillips County.

For Councilor Fifth District—H. H. Henry of Eagle Mills, Ouachita County.

For Councilor Seventh District—J. B. Crawford of Benton, Saline County.

For Councilor Ninth District—Leonidas Kirby of Harrison, Boone County.

Delegate to A. M. A.—R. C. Dorr of Batesville.

Alternate Delegate to A. M. A.—T. F. Kittrell of Texarkana.

On motion of Dr. Snodgrass, seconded by Dr. Caldwell, the secretary was authorized and instructed to cast the vote of the society for all the candidates selected by the Nominating Committee, except the president. This motion being put, it carried unanimously.

Dr. Eberle: After an almost uninterrupted attendance for many years, this is the first time I have not been approached by some gentleman in behalf of the election of some friend of his to an office. That same experience has occurred to the other doctors of my party. So it seems that the millenium has at last arrived, and that the office this time seeks the man.

Dr. Meriwether: I dislike to vote for myself, and I would suggest that the vote be cast by acclamation for all nominees, except those who have been designated as candidates for president.

Agreed to.

The chair appointed Drs. Snodgrass and Caldwell as tellers to distribute ballots and collect the vote for president.

The first ballot resulted: Wallis, 20; Brown, 21; Warren, 10.

On motion of Dr. Eberle, it was agreed that after the second ballot, the candidate receiving the lowest number of votes should be dropped.

Second ballot resulted: Wallis, 23; Brown, 21; Warren, 6.

Third ballot showed: Wallis, 33; Brown, 18.

On motion, the election of Dr. Wallis for president was made unanimous.

Selection of the next place of business being next in order, the chair extended an opportunity for invitations to be tendered.

Dr. Eberle: I want to supplement the telegrams which the secretary read a while ago, from the mayor of Fort Smith, the president of the Business Men's Club, the Noon Civics Club, and the management of the Goldman Hotel. I would like to add to that an invitation from the Sebastian County Medical Society, for you to be our guests next year. We have the second largest county society in the state, we have the second largest city in the state. We have more paved streets than any other city in the state, the best sewerage city and the finest water power in the state. We have the most beautiful women and the most hospitable men in the state. We extend to you a warm and cordial welcome to be with us next May.

Dr. Kosminsky placed Texarkana on the list of eligibles, assuring the society of a hearty welcome from all citizens.

Dr. Thibault extended the hospitalities of Scotts for the coming meeting. He described this locality as a kind of rustic elysian, with ample facilities for sleeping out of doors, and told of the many screened porches and the excellent sanitary provisions for the

comfort of guests. While not revelling in such wealth of paved streets as a member from one of the cities had referred to, there were good country roads leading in all directions. He extended a hearty invitation to enjoy a meeting in this highly favored rural retreat.

On motion, the nominations were closed and the society proceeded to select the next meeting place.

The first ballot showed: Texarkana, 21; Fort Smith, 19; Scotts 6.

Second ballot resulted: Texarkana, 26; Fort Smith, 21.

On motion of Dr. Eberle, Texarkana was made the unanimous choice for the meeting of 1916.

Dr. Kosminsky: I thank you for this honor. We shall endeavor to make it the most pleasant and profitable meeting ever held, and shall endeavor to entertain you to the best of our ability.

The chair appointed Drs. Brown and Warren a committee of two to escort the incoming president to the rostrum. After a search, Secretary Meriwether reported that neither of these gentlemen could be located, and he took the liberty of bringing Dr. Wallis in for congratulations.

The Chair: Gentlemen of the Arkansas Medical Society, I take great pleasure in introducing to you your new president, Dr. J. C. Wallis of Arkadelphia. (Applause.)

Dr. Wallis: If I had known that I was expected to make a speech I should have gone with the other gentlemen—the defeated candidates. I shall have to disappoint you if you expect a speech, for I have none prepared; but I want to assure you that I feel very grateful for your compliment. There is nothing that pleases a man much more than to have the confidence of his fellow-workers in any line of endeavor. I wish to assure you that I appreciate most highly the great honor you have conferred upon me today. (Prolonged applause.)

On motion of Dr. Thibault, seconded by Dr. Snodgrass, the secretary was instructed and requested to extend the usual thanks of the society to the host, the Pulaski County Medical Society, the hotels and the railroads, the newspapers and the citizens for the facilities and courtesies enjoyed during the meeting.

The Chair: Gentlemen, this concludes the business of the session.

The general session, on motion, duly seconded, adjourned sine die.

New and Nonofficial Remedies.

Since publication of New and Nonofficial Remedies, 1915, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies:"

PAPAVERINE.—An alkaloid obtained from opium, but not chemically related to morphin. Its use has been proposed in various atonic conditions of the smooth muscles, particularly in gastric and intestinal spasms, for the diagnosis of pyloric spasm, biliary colic, and in bronchial spasm. It is a feeble analgesic and local anesthetic. Neither tolerance nor habituation from its use has been reported. It is used in the form of its salts (see below).

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PAPAVERINE HYDROCHLORID, ROCHE, TABLETS.—Each tablet contains papaverine hydrochlorid 0.04 gm. Hoffman-LaRoche Chemical Works, New York (Journal A. M. A., May 29, 1915, p. 1849).

PAPAVERINE SULPHATE.—This contains not less than 85 per cent of papaverine. Papaverine sulphate is odorless, bitter, and slightly hygroscopic. It is soluble in water and in alcohol; very soluble in chloroform; insoluble in ether. It is marketed as:

PAPAVERINE SULPHATE, ROCHE, AMPULES.—Each ampule contains 0.04 gm. papaverine sulphate. Hoffman-LaRoche Chemical Works, New York (Journal A. M. A., May 29, 1915, p. 1849).

County Societies.

POPE COUNTY.

(Reported by L. D. Berryman, Sec'y.)

Russellville, May 21, 1915.—The Pope County Medical Society met in regular session at Dover, Pope County, Arkansas, Wednesday, May 19, at 1:30 p. m. Had a full attendance and a good program.

FRANKLIN COUNTY.

(Reported by Thos. Douglass, Sec'y.)

On account of the State Society meeting at Little Rock, the Franklin County Medical Society held the regular monthly meeting a week late—that is, on May 11. Dr. Blackburn, vice president, presided. The president, Dr. Warren, came in later and took the chair. We had present also Drs. Bowen, J. P. Blakely, Rambo, Post, Gibbons, Williams, Turner and Douglass. We had an interesting and profitable meeting. Dr. Downey reported a case of pellagra, and the subject was well discussed. In the discussion Dr. Turner

mentioned a case he had seen in which similar skin lesions had occurred on the hands and feet of a case of typhoid.

Dr. Williams exhibited a wire ring, such as is used to fasten on buttons of duck coats, half an inch in diameter, which had required from April to September to pass through the alimentary tract of a child. In that time there had been attacks of bloody diarrhea.

Dr. Blackburn read an excellent paper on "Disorders of Menstruation."

The program for next meeting includes Dr. Post's paper on "Phylaeogens" and a report from our delegate to the State Society.

Book Reviews.

THE CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume IV, Number 1. (February, 1915.) Octavo of 185 pages, 41 illustrations. W. B. Saunders Company, Philadelphia, 1915. Published bi-monthly. Price, per year: Paper, \$8.00; cloth, \$12.00.

This volume opens with a talk by Dr. Murphy on Surgical and General Diagnosis. He considers intestinal fistulas with comment on four cases. The article is illustrated.

Twelve other subjects are discussed by Dr. Murphy. An article is given by Harvey R. Gaylord of the New York State Institute for the Study of Malignant Disease, on "The Relation of Cancer Research to the Clinical Aspects of Cancer."

INTERNATIONAL CLINICS.—A quarterly of illustrated clinical lectures and especially prepared original articles by leading members of the medical profession throughout the world. Edited by Henry W. Cattell, A. M., M. D., Philadelphia. Volume I. Twenty-fifth series, 1915. Published by J. B. Lippincott Company, Philadelphia. The price of this book is \$2.00.

This volume gives ten interesting and instructive articles on "Diagnosis and Treatment," four on "Medicine," five on "Surgery," the first being by Dr. P. G. Skillern, Jr., on "A Visit to the Surgical Clinic of Dr.

John B. Murphy at the Mercy Hospital in Chicago." Another article on "Medical Economics." The book closes with an eighty-page article on "Progress of Medicine During the Year 1914."

GENERAL MEDICINE.—Edited by Frank Billings, M. S., M. D. Head of the faculty of Rush Medical College, Chicago; and J. H. Salisbury, A. M., M. D., Professor of Medicine, Illinois Post-Graduate Medical School. Volume I. Series, 1915. Published by the Year Book Publishers, 327 S. La Salle Street, Chicago. Price of this volume is \$1.50. Price of the Practical Series, comprising ten volumes on the Year's Progress in Medicine and Surgery, \$10.00.

This book is one of a series of ten issued at about monthly intervals, and covering the entire field of medicine and surgery. The present volume covers infectious diseases, diseases of the lungs, diseases of the heart, diseases of the arteries, diseases of the blood-making organs, diseases of the ductless glands, metabolic diseases, and diseases of the kidneys.

THE TUBERCULOSIS NURSE.—Her function and her qualifications. A hand-book for the practical workers in the tuberculosis campaign. By Ellen N. La Motte, R. N., with an introduction by Louis Hamman, M. D. Published by G. P. Putnam's Sons, New York. Price, \$1.50.

This book will be found of unusual interest to the physicians as well as nurses who are interested in matters pertaining to tuberculosis. It gives many of the problems that have offered themselves at the Johns Hopkins Hospital, and considers the fundamental problems of dealing with tuberculosis, which are the same everywhere. The authoress believes that the simplest and most direct method of controlling tuberculosis is through segregation—the voluntary segregation—of the distributor, and that to remove the patient from an environment where he is dangerous to one where he is harmless, is the function of the public health nurse. This is her chief and foremost duty, and all others are subsidiary to it.

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No. 2

Original Articles.

CANCER OF THE UTERUS.*

By J. G. Eberle, M. D.,
Fort Smith.

To read a paper before this body upon so trite and well-worn a subject, I might say so threadbare a subject, as cancer of the uterus, would seem to call for an apology at the outset, but I want to discuss with you a phase of the subject that is so important, that if by reiterating to you what you already know, I am able to impress upon you the necessity of early diagnosis of this affection, my effort will not be altogether vain.

I shall, therefore, not take up your time in dwelling upon the various theories as to its cause, nor the different plans of treatment; suffice it to say that the efforts of the ablest investigators have taught us little of the former, and the radical operation with the knife is the only satisfactory course in the latter.

I may say, by way of further apology for taking up your time with this subject, that notwithstanding the fact that for a number of years the scientific world has urged this question upon the profession, that societies for the spread of the propaganda of the early diagnosis and treatment of cancer of the uterus have been organized throughout Europe and America, that by lectures and literature an educational campaign has been waged, not only in the profession, but also before nurses' associations and laymen's organizations. Notwithstanding these facts, we are unfortunately far too frequently witnessing diagnoses overlooked by the doctor, or cases neglected by women due to their lack of knowledge upon this important subject.

It therefore behooves us as general practitioners to be more alert in the investigation of these cases among our clientele.

There is a widespread opinion that the number of cases of cancer is increasing; whether such is the case it is difficult to decide. It may be, as is claimed by some investigators, that the increase in longevity, that more women reach the cancer age than formerly, that more cases are diagnosed and sent to cities where statistics are tabulated, is the reason for the increase as given in the statistical reports.

To diagnose this disease early enough for reasonable assurance of its cure, even under a radical operation, requires the utmost care and watchfulness on the part of the physician. To wait until hemorrhage is severe, pelvic pain marked, a more or less frequent foul-smelling discharge present, cachexia manifest, is to wait until the case is usually beyond hope of benefit—and yet this is the condition that is usually reached before a woman considers it necessary to consult her medical adviser, and when consulted, he too often prescribes an antiseptic douche, and without making an examination tells her it is one of the many annoying conditions to be expected during the menopause, and sends her away to lose what little valuable time is left her, even if it is not already too late.

Cullen, in *The Pennsylvania Medical Journal*, designates three different situations in which cancer may develop: "From the squamous epithelium which covers the vaginal cervix, from the glands or epithelium of the cervical canal, and from the glands or epithelium of the endometrium. He says that any bloody or watery discharge from the vagina which cannot be definitely accounted for, demands immediate and careful local examination. If the cervix is found to be rough, friable and bleeding, the diagnosis of cancer is usually certain.

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

If the diagnosis is uncertain, a wedge of the suspected area should be excised and sent to a suitable pathologist for examination.

If the cervix appears normal, the question then arises as to whether the cervical canal or the cavity of the uterus is affected. In such cases, unless other diseases are found which clearly explain the symptoms, the uterus must be thoroughly curetted. The tissues should be thrown into a 10 per cent formalin solution and sent to a pathologist. As a rule there is just as much difference under the microscope between cancerous and healthy mucosa, as there is between two totally different patterns of wall paper.

From no other part of the body is it possible to so easily obtain material for diagnosis. Take, for instance, cancer of the stomach—how thankful the operator would be were it possible to just introduce a straight curette to the pylorus and bring away some tissue for diagnosis without the necessity of making an incision or of doing any suturing.

For the early diagnosis of cancer of the stomach, an exploratory operation is usually necessary.

We, as general practitioners and surgeons, have absolutely no excuse for failing to diagnose cancer of the uterus within one week after the first time the patient comes under our observation.

Dr. John G. Clark of the University of Pennsylvania, in an able paper on "Progressive Medicine" a few years ago, says of the evil of procrastination:

"Notwithstanding the almost innumerable articles which have recently been published on cancer of the uterus, there has not been one pathognomonic sign or symptom discovered which will point unerringly or even with *approximate* certainty to the onset of this disease.

"The established fact that more than 65 per cent of cases of cancer are turned away from our hospitals as inoperable, and that of those presumably operable only a very small percentage are ultimately cured, is a very serious reflection on our ability to make an early diagnosis in these cases.

"As the matter stands, the blame largely, but not wholly, rests on our profession, for our women patients too often pursue such a procrastinating policy that nothing can be done by the time they consult a physician, and while we usually attribute our bad results

to this source, we cannot support it by the past history of medicine, for it is a well-known fact that medical knowledge of one generation becomes a lay possession of the next.

"The root of this evil, therefore, comes directly home to us, for even today many physicians are all too much inclined to attribute every nervous and physical deviation of women after thirty-five years of age to the ills of the menopause, and consequently assume that time will slowly but surely correct them.

"In approaching the question of symptomatology we must therefore clear the ground of all this rubbish before we can hope to make progress.

"The surgical world is at present pursuing the most radical operative policy against cancer, and, with limitations, I am in full accord with this policy. This line of action has been pushed to its farthest limit, and yet our results, under present conditions, are notoriously bad.

"The limit to further progress, so far as devising more radical operations, has been reached, and the chief aim in the future must be to educate our consciences up to the point of feeling that we are the most malicious of malpractitioners if we pass over lightly the slightest deviation of the menstrual functions in women of the cancerous age, or of treating locally, as an ulcer, a condition of the cervix which may be cancer.

"Still more our energies must be turned toward our patients in impressing on them the serious dangers of delay in consulting a physician after any of these minor symptoms."

Some years ago, in order to stimulate the profession to greater efforts in the early diagnosis of cancer of the uterus, the American Medical Association appointed a committee to formulate rules for its guidance, a part of which are as follows:

"We would suggest that you impress women regarding the wisdom of a careful physical examination at the first appearance of an unaccountable uterine bleeding or discharge, and the necessity, in case of doubt, of employing an expert in pelvic diagnosis.

"Permit us to call attention to some of the suggestive symptoms of early cancer of the uterus—symptoms which are not in themselves conclusive, but are always sufficiently suggestive to make a careful and exhaustive

physical examination advisable, and, in most cases, imperative.

"First. Cancer of the cervix is a disease of midlife, occurring especially between the ages of thirty and fifty.

"Second. It rarely occurs in women who have not borne children.

"Third. While there is no characteristic early sign of cancer, bleeding or a blood-stained discharge is usually, but not always, present. It may be slight—only a show appearing at irregular intervals, as on exertion, after sexual intercourse, using a douche or straining at stool, or it may be slight but constant, the patient noticing that her clothes are slightly stained upon taking them off at night. In other cases the bleeding may be more profuse, simulating a prolonged or irregular menstruation, or a return of the menses after the menopause. In still other cases severe hemorrhage may occur, appearing either as the result of an unusual exertion, or the cause may not be apparent.

"Fourth. In a small percentage of the cases bleeding may be absent, but usually some other sign, such as unusual leucorrheal discharge, calls attention to the growth. In a small percentage of the cases all symptoms referable to the growth may be absent for a long time.

"Fifth. Pain caused by the growth usually occurs later in the course of the disease and must be differentiated sharply from pain arising from pelvic trouble independent of the cancer, such as inflammatory condition of the tubes, ovaries, etc.

"Sixth. It is evident that all women suffering from uterine bleeding or other symptoms referable to the uterus should be curetted, or a small piece of the cervix excised and not thrown away, but preserved in 10 per cent formalin or ordinary alcohol, and sent to a competent pathologist.

"All symptomatic aberrations referable to the generative organs of women about the menopause should be looked on as the possible beginning of malignant cancer, and an immediate examination should be urged.

"If no pathological change is detected, this fact alone should be of great value to the physician as well as to the patient. If a suspicious area is found, prompt measures for its certain diagnosis by the microscope may be instituted.

"Its course is rapid. It passes beyond the limits of the uterus proper (and hence be-

comes practically incapable of complete eradication) in a period which usually varies between thirty days and six months from the outset of the earliest symptom. When it runs its course undisturbed, patients rarely live more than three years; about three-fourths of them die within one year after the first manifestation of the disease.

"Cancer of the body of the uterus is much less frequent than cancer of the cervix, grows more slowly, remains restricted to the uterus for a long time, occurs at a more advanced age, and is more frequent in women who have not had children."

Notwithstanding that this information has been so widely spread among the profession and the laity, the inoperability of cases presenting themselves to the surgeon varies from 30 to 60 per cent and over.

In passing, a word upon inoperable cases. I don't want to be considered a carping critic, and am not going to condemn, but to appeal to the surgeon not to shorten the lives of these poor, unfortunate sufferers, not to take away from them the few remaining weeks or months that they may be spared to their families, by operating because, forsooth, they cannot get well anyhow.

Those who have opportunities for observation view with horror the hundreds of women who have their ovaries and tubes removed without a pathological condition to justify it, of women who are carried down into the valley of the shadow of death and left to lives of invalidism because the surgeon either could not make a correct diagnosis, or could not resist the temptation to operate; the same is true of cases of cancer that are too far advanced to offer hope of a cure. Much can be done for these cases in a palliative way, their lives prolonged and made, in a measure, comfortable.

I do not accuse the surgeon of a sordid motive in operating upon cases that are clearly inoperable, but to a lack of judgment. The good surgeon is not the one who uses the knife skillfully, but the one who knows when *not* to use it.

To return to our subject—Moulton, in *The Journal of the American Medical Association*, says:

"That the present hope of securing earlier recognition of carcinoma of the uterus must lie in the hands of the general practitioner; he must start a campaign of education among the women of his clientele.

"All women approaching the cancer age have, as a rule, some physician to whom they look for advice and who occupies to them the position of 'father confessor' in all medical affairs.

"If the family doctor will impress upon these women the necessity, as they approach the menopause, of reporting to him any changes in the character of their vaginal discharge; if he will then go to the point of impressing upon his patients the value of a routine vaginal examination at least once in every six months, in women between the ages of twenty-five and fifty-five, whether they have any symptoms or not, the statistics of operable cancer of the cervix will take their place along with those of cancer of the breast. Cancer of the cervix does not differ in its biology from cancer on the visible surfaces of the body, and, could it be seen in the same stage of its development, it would be just as amenable to surgical cure."

I would like to emphasize the suggestion of educating your women patients, as they approach the cancer stage, to submit to a careful vaginal examination at least twice a year, for thereby lies the road to safety.

Frankl of Vienna, as quoted by the "Practical Medicine Series," says:

"The results obtained by the radical operation in early cancer discloses the great necessity for its earlier recognition both by the laity and the physician. Apparatus should be accessible by which a histological examination of the uterine scrapings may be made and the true character of the tissue disclosed. This examination should be free of charge.

"Central stations for this work, and repeated warnings to the public, will go far in the earlier detection of malignant disease.

"The number of women with a typical hemorrhage and suspicious local findings renders it necessary for every general practitioner throughout the country to be able to determine the true nature of the disturbance as a common routine measure."

Now to mention a few of the cases that have come under my observation, and that have impressed me with the great importance of increasing our efforts of seeing these cases earlier.

Mrs. A., about forty years of age, well nourished and apparently in good health, consulted me for uterine disease. She had suffered no marked pain, was having no grave

constitutional disturbance, no odor and no uterine hemorrhage of consequence, yet there were pressure symptoms and other evidences of discomfort that led her to believe that there existed uterine trouble—not serious, perhaps, but sufficient to make it advisable to consult a physician.

An examination revealed extensive cancerous disease involving the entire cervix, extending up into the fundus of the uterus and largely involving the vaginal walls. The case was deemed inoperable and she was soon lost sight of.

Mrs. B., seen in consultation, a woman of middle age, supposed she was passing through the menopause. No marked emaciation, no great pain, no cachexia. Was found to have, upon examination, cancer of the entire cervix.

An operation was performed, the diseased tissues removed as far as possible, to be followed by a recurrence and a fatal termination within the year.

Mrs. C. and D., also seen in consultation, presented the unique circumstance of a mother and daughter, both afflicted with advanced uterine cancer, coming together to the hospital for treatment.

The mother was past sixty, emaciated and with the characteristic discharge with the foul odor of the disease in an advanced stage. The daughter, about forty years of age, married and accompanied by her two children, two and four years of age, respectively, like the first case reported, showed no marked effects of a deadly disease. An examination revealed extensive involvement of the cervix, fundus and vaginal walls; both cases were considered inoperable and were allowed to return to their homes.

Mrs. E., between forty and forty-five years of age, vigorous and active, still menstruating regularly but excessively, consulted a physician for almost constant nausea. Without suspecting uterine disease he treated her for the stomach trouble. In time she consulted another physician, who, upon examination, found the cervix carcinomatous. An operation was performed, but again the disease returned and death ended the story.

Your time might be consumed with more cases, but these serve to illustrate the point I laid down in the beginning—that early diagnosis and early operation are the only saving features in cancer of the uterus.

THE ORGANIZATION OF NATIONAL AND LOCAL FORCES IN THE CAMPAIGN AGAINST CANCER.

By Curtis E. Lakeman,
Executive Secretary American Society for the
Control of Cancer,
New York City.

The American Society for the Control of Cancer has recently urged that every State Medical Society take an active part in arranging meetings and in spreading among all members of the profession the latest knowledge of malignant disease. At the suggestion of the Cancer Committee of the Pennsylvania State Medical Society, many journals will devote their July issues to this subject. It has been pointed out that the American Society for the Control of Cancer might take this timely opportunity to state its view of the relations between the various bodies which are concerned in this campaign. The suggestion is welcome. If, indeed, a clear understanding can be reached as to the most effective division of functions and duties among the various organizations, national, state and local, interested in this subject, a long step will have been taken toward the conquest of malignant disease, in so far as that deal can be approached by the practical application of present knowledge.

THE NATIONAL SOCIETY.

The American Society for the Control of Cancer sets up no claim of priority or originality in preaching to the public the necessity of early recognition and treatment of this disease. The organization was effected under the inspiration of numerous similar movements in this country and in Europe. From the first it has been inspired only by a sincere ambition to co-ordinate all existing forces into a single irresistible nation-wide effort to reduce the cancer death rate by imparting the necessary knowledge and inspiring the will to believe and act upon it. Those who direct the policy of the society have no illusions that they are "called" above others to this task. They firmly believe that all sincere workers should unite in a single well-considered national movement. If the present society fails to meet the requirements of such a movement it must give place to some agency that will do so, leading the campaign against malignant diseases with as conspicu-

ous ability and success as the National Association for the Study and Prevention of Tuberculosis has directed the war on consumption.

RELATION TO THE PROFESSIONAL SOCIETIES.

While the Cancer Society found its first impulse in the work of a committee of the American Gynecological Society, the movement was broadened at its very inception by the appointment of organizing delegates from the American Surgical Association, the American Dermatological Association, the Association of Pathologists and Bacteriologists, and practically all the similar special organizations which met in Washington in May, 1913, as the Congress of American Physicians and Surgeons. Definitely launched in New York on May 22, 1913, the movement received within a few months the official endorsement of the American Medical Association, the Clinical Congress of Surgeons, the Western and the Southern Surgical and Gynecological Societies and a number of sectional and state organizations. All these professional bodies have endorsed the design of the National Cancer Society as expressed in its Constitution:

"To disseminate knowledge concerning the symptoms, diagnosis, treatment and prevention of cancer, to investigate the conditions under which cancer is found, and to compile statistics in regard thereto."

RELATION TO CANCER RESEARCH.

It will be seen that this purpose comprises not only the conduct of an educational campaign, but the gathering of information in regard to this disease. In what relation, then, does the society stand to the various American cancer research institutions and workers? The answer is that the society does not contemplate the prosecution or support of biological research, already so ably pursued under the auspices of our leading universities. With these workers in the field of pure science, mutually helpful relations have developed. Indeed, a notable collective expression of their attitude is regarded as a very corner stone of the educational movement. A few years ago the eminent laboratory students placed on record in the transactions of their official organization, the American Association for Cancer Research, their conviction that pending the discovery of the ultimate nature and cause of cancer, a far more effective dissemination and utilization of the

vast store of present knowledge of the disease is urgently called for. Formed to carry out this very object, the "Control" Society depends upon the constant support and co-operation of the institutions represented in the "Research" Society. Many of the foremost American students of cancer are prominent in the membership of both organizations. Machinery is thus provided for the wider dissemination among the profession and the people of the essence of the newest knowledge of malignant disease, fresh from its laboratory sources.

RELATION TO STATISTICAL INVESTIGATIONS.

The society does, however, contemplate original work in the collection and collation of statistical data, and will expand this feature of its program as fast as its resources permit. The statistics of cancer mortality need to be improved both as regards their collection and their publication. The merest suggestion by the society to the United States Census Bureau has been sufficient to initiate a notable advance in this respect. With the greatest possible interest and zeal, Mr. Harris, the late director of the census, and his successor, Mr. Rogers, have undertaken the preparation of a special report on the cancer mortality of the United States registration area in 1914. The number of deaths will be stated in full detail under some thirty titles of organs and parts of the body affected, instead of, as hitherto, merely under the six general groups of the international list. The Imperial Cancer Research Fund has long urged that it is only on the basis of such detailed data for the various organs that a true conclusion can be reached as to whether or not cancer is increasing. For the first time in the United States the data will now be at hand, as it is in England and Wales through the reports of the registrar general, for the prosecution of such inquiries.

The Census Bureau will also for the first time in this study make a distinction between returns based on certain and on doubtful diagnosis. To secure the additional information needed for this distinction, the bureau is sending tens of thousands of letters to physicians who have certified deaths from cancer, asking whether the diagnosis was based on clinical findings alone, or was established by surgical intervention, microscopical examination, or autopsy.

All this, it will be realized, is a large amount of work for even a government bureau to undertake. Much of it should be done in the first place by the registration offices and the boards of health of the several states, where the original certificates of death are filed. It will be the duty of the American Society for the Control of Cancer to urge upon the various state officials the need of undertaking this work in order to insure the permanence of the advance in the statistical study of cancer which has been inaugurated by the Census Bureau.

But the society is also interested in special statistical studies of the geographical, racial and occupational distribution of cancer, and above all in collating, upon a uniform plan, the records of surgical treatment of the disease in the leading hospitals. It is important that an authoritative answer be available for all who ask just what percentage of success is to be expected in the treatment of each phase and each stage of this multiform disease. All such studies the society regards as fulfilling its fundamental purpose and in pursuing them it is everywhere receiving the most cordial encouragement and assistance from statistical offices and from the best hospitals and institutions.

RELATION TO EDUCATIONAL AGENCIES.

The important and clearly established lessons derived from such studies of the sources of information must be given to the public. The society has undertaken to do this directly, through its publications, its regular articles for the newspapers and its lectures. But in the large view it can best secure this object by enlisting the co-operation of all appropriate existing agencies which conduct educational work. Foremost among these are the state and local departments of health, especially those which are devoting an increasing share of their energies to the spreading of the gospel of health by bulletins, exhibits and lectures. In the same category must be included the committees on public instruction which in many states are conducting admirable campaigns of health education under the auspices of the State Medical Societies. Toward all these agencies the society stands in the relation of the "producing" to the "distributing" end of a manufacturing business. With its wide outlook over the national field it is in a strong position to provide statistical

material, to receive and pass on new knowledge, new experiences, new methods which have been found valuable in one field and should be used in others. In another view the society may take the position of "middle-man" between the research workers and statistical students producing new facts about cancer at the sources of knowledge on the one hand, and on the other the many agencies, general and local, which will bring the practical bearings of this knowledge, new and old, directly home to the people. In general, then, one of the most useful functions of the society is to act as a bureau of information and clearing house which is at the service of all workers and institutions interested in the study and control of cancer.

RELATION TO STATE COMMITTEES.

The relation of the National Society to similar movements within the various states should be clear from what has been said. In no case will the society seek to set up local agencies to parallel work already adequately organized under the auspices of state medical societies and boards of health. Provision is made for local committees to be organized under the supervision of the resident directors of the National Society wherever no state or local agency is in a position to undertake the work. Such groups will not be formed, however, except under full agreement with present state agencies. Where, as in Pennsylvania, under Dr. Wainwright, and similarly under the auspices of the state medical societies of Maine, Wisconsin, Kansas, Colorado, Louisiana, Texas and many other states, active local committees are at work, every effort will be made to assist these groups in the manner already outlined, and, so far as the constitutional limits of size permit, to secure from them representative delegates to the governing council of the National Society.

RELATION TO OTHER GENERAL COMMITTEES.

It is an earnest of the good feeling and harmony with which the cancer campaign is evolving toward a single coherent national movement to consider the high degree of integration with other national agencies which has already been attained. Some of these had begun effective work long before the present society was established. Aside from such admirable local campaigns as that of the Pennsylvania Commission and the work in-

spired by Dr. C. C. Carstens in Michigan, the Clinical Congress of Surgeons of North America had in the field an active Committee on Cancer under the chairmanship of Dr. Thomas S. Cullen of Baltimore, the other members being Dr. Simpson of Pittsburgh and Dr. Howard C. Taylor of New York. This committee, as is well known, caused the publication of widely read and influential popular articles by Samuel Hopkins Adams. It is instanced merely as indicative of the get-together spirit that animates the National Society that all three of these men naturally took their places as members of the Executive Council of the new association. Subsequently the American Medical Association appointed a Cancer Committee representing its Council on Health and Public Instruction, and again to avoid duplication of effort, the same men were made members of that committee. Dr. Frederick R. Green, the capable executive of this council of the American Medical Association, has been from the first a director of the Cancer Society, and has given invaluable advice and co-operation in its publicity campaign, printing every week in the press bulletin of the American Medical Association a popular article on cancer prepared by the society, which thereby reaches three thousand or more editors in all parts of the country.

A similar identity of committee has been effected in local fields, especially in Minnesota, and is typical of the desire to carry on everywhere a well-co-ordinated national campaign which shall embrace representation from all the principal local agencies and shall thus move forward with absolute harmony and unity of purpose to the accomplishment of its difficult but glorious ideal—the progressive reduction of the mortality from this historic scourge of mankind.

In the present state of our knowledge of malignant disease it cannot be too frequently emphasized that the hope of curing cancer is to be found in its earlier recognition and in prompt and competent surgical treatment. The unfortunate patient who, because of ignorance or unwarranted fear or the blandishments of quacks, hesitates to seek proper advice, should realize that in this delay he or she is recklessly throwing away a splendid chance of cure.

THE IMPORTANCE OF SANITATION.*

By E. C. Meyers, M. D.,
Fort Smith.

Mr. Chairman, Ladies and Gentlemen:

We have met here this evening for a specific purpose, the purpose being to deal with questions which relate to public health. When I received notice that I would be expected to make the first talk of the evening, I hesitated some before accepting the honor, for the reason that I knew there would be many present at our state meeting, who, because of their reputation as public speakers, could command your attention, and increase your interest in the great problems of public health. But I find that I will be relieved of much responsibility in this respect because of the able gentlemen who are to follow me on the program.

I will therefore undertake to discuss briefly the topic that has been announced, namely, "The Importance of Sanitation." In a broad sense, sanitation means health; from a public health standpoint it has to do, not so much with the health of the individual, but with the relation which he bears to the community, as a unit of the social organization.

It recognizes the fact that the sum total of health and healthful conditions is of fundamental importance, and bears an essential relation to communal welfare.

No state, no country, no people, have ever been able to advance permanently beyond the limitations of healthful environment. We cannot ignore the influence of disease upon civilization, or the fact that the secret of the degeneration of whole peoples may lie in the enervating influence wrought by widespread infections. History furnishes abundant proof of this statement. We have but to study the history of the races of mankind to be convinced of the fact that the great pestilential diseases of the past exerted a marked influence on the manners, the customs and the progress of the people.

Greece and the Roman Empire, when at the height of their intellectual and physical supremacy, were healthful countries. It was not until their victorious legions returned from conquests, bringing back with them malaria, bubonic plague, and other infections,

that their people began to decline in mental and physical fitness.

Bubonic plague stands out prominently in history. It reaches far back into the mists of antiquity, and was probably almost co-eval with the human race. The last of the "Plagues of Egypt" seems to have been an epidemic of bubonic plague. "It broke out in Egypt and spread like wildfire over Syria and the valley of the Euphrates, to Asia Minor, and thence to Constantinople, and the west. In Constantinople there were daily ten thousand victims. Chesgroes, the Persian, desired to besiege the city, but this pestilence affected history to the extent at least that it required him to retire and to disband his army." The plague took no note of north or south, of Greek or Persian. To all alike it was deadly; one-third of the empire's population was computed to have been destroyed by it. It continued pandemic for fifty-two years, and destroyed about one hundred and fifty million lives.

Every century from the sixth to the fourteenth was especially marked by great epidemics of pestilential diseases, and then occurred the Black Death, the most dreadful calamity ever visited upon mankind.

You are all, no doubt, quite familiar with the epidemics of cholera, of yellow fever, of plague, and other infectious diseases that have frequently occurred in modern times, and the enormous loss of life, and injury to commerce and productive industry, that they have brought about.

I have referred to this briefly in order that we may place in contrast the achievements of modern medicine and modern science, not alone in the saving of life by prevention and control of disease, but by so doing have made it possible to successfully complete the Panama canal, one of the greatest undertakings the world has ever known. DeLesseps failed not so much through lack of money, but because he did not know how to bring about healthful conditions. It was American initiative, and energy, and American money that built it; but above all, it stands as a monument to American medical men, who made it possible through application of modern scientific methods in the prevention of disease. This is but one object lesson on a large scale that shows the economic importance of sanitation.

*Read at the Public Health Meeting of the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 6, 1915.

There are health problems in Arkansas that in some respects are not unlike those that existed in the canal zone. I refer to the mosquito problem and the drainage of the swamp lands of the state. The swamp sections of the state can never be made healthful until these swamp lands are properly drained, and the great breeding places of malarial mosquitoes destroyed. I know of nothing that would be of greater economic value to the state. We should have a drainage commission, properly financed, to employ engineers to make a survey of these, and an approximate estimate of the cost of drainage, and then, if necessary, appeal to our national government to assist in this great work. There is no doubt much machinery in the canal zone that could be utilized for this purpose, and that will soon go to the junk pile unless it is put to work somewhere else. Our government has spent much money in irrigating the arid regions of the far West. Would it not be worth while to invest what money is necessary to drain our swamp lands, when by so doing it would not only make these lands habitable from a health standpoint, but because of their wonderful fertility they could be easily made the garden spot of the world. Because of malarial conditions in certain sections of Arkansas, much emigration has been kept away from the state, and it has done the whole state harm, because the false impression has been created, some of it through selfish interests, that the whole state is unhealthful, while the fact is that much of the state with her matchless resources of soil and climate, her mountains and her health-giving springs, present conditions that are especially healthful and inviting.

From a public health standpoint it is not only our duty to improve health conditions, but it is also highly important that wrong impressions be corrected, in order that those who seek homes in the state may know the exact truth. But there are many health conditions in Arkansas, just as in other states, that have a direct influence upon her productive resources, and become questions of economic and social importance to all the people. I refer particularly to infant mortality, to the contagious and infectious diseases of children, and to those widespread infections so common among all classes. When I remind you that 20 per cent of all infants die

before they reach the age of one year, and that a very large percentage of these die of gastro-intestinal diseases due to improper feeding, the natural inference is that too large a business is being done in short coffins, and that about the only way to put a crimp in this short-coffin business is to stop feeding these babies on germ-laden skim milk. Skim milk may have its food value, but every bottle of it should be labeled "Not for Babies." It is just about as sensible to try to properly nourish a baby on skim milk as it would be to try to fatten pigs on ground up corn cobs. The mothers must be educated as to the necessity of proper food for babies, along with fresh air, sunshine and cleanliness. We need a more systematic and thorough inspection of all the schools of the state, especially those of the rural districts, and a greater interest in child welfare in general, in order that they may have healthful environment, and be relieved of those diseases and physical disadvantages which handicap them, and which tend to propagate a race of impoverished blood, and depleted manhood and womanhood. There must be no let up in the fight against infectious diseases. And of these I might mention especially tuberculosis. It is indeed the great menace of the human race. I do not know the number of cases of tuberculosis in the State of Arkansas, but for illustration let us assume that there are fifteen hundred young men between the ages of eighteen and forty-five years, and almost an equal number of young women between the same ages, who are afflicted with tuberculosis, and that in many instances these young men and women represent the flower of the State of Arkansas. It is not exaggeration to assume that these young men in the full vigor of physical fitness would have a productive and earning capacity of not less than \$1,000.00 a year. And this furnishes a striking example of the great loss that is sustained from a single disease. It is useless to deny this fact; and when we consider the number who are partially disabled from preventable diseases, the economic waste and loss mounts up to startling figures. Man's economic value is based upon his earning capacity. If his earning capacity is depreciated 50 per cent because of physical unfitness, someone must stand the loss. Either those who employ him, or those who are dependent upon him for support. And so we find sick-

ness brings poverty, and poverty brings neglect, and fills our orphans' asylums and almshouses. It would cost less to bring about healthful conditions in the State of Arkansas than it does to bury those who die from preventable diseases, to say nothing of the enormous loss because of those who are partially disabled. The mystery of mysteries is, how any sane man can, through any process of reasoning, arrive at the conclusion that he is serving the best interests of the people, when in any representative capacity, or in our legislative halls, he antagonizes public health measures. I am told that there are health officers in this state who are not receiving any compensation whatever for their services. Has anyone given you a valid reason why they should not be paid for their services? Can you think of any reason, based upon a sound economic policy, why they should be expected to carry on this work without financial aid? Would it not be just as fair, just as reasonable, to ask the county judges to perform the duties of their office without pay? The conservation of human life certainly ought to be as important to a community as the building of roads and bridges, or the taking care of those human wrecks, who through neglect, and because of sickness, ignorance and poverty, are floating down life's stream like so much driftwood, to be stranded in our charitable institutions and thus become an expense and a burden upon the productive resources of the people. The health of the people has been too long considered entirely a doctor's problem. I wish to say that this is not the case. As physicians we have been engaged largely in curative medicine. In recent years the medical profession has become thoroughly aroused to the enormity of the drain upon the nation by preventable diseases. This speedily brought the recognition that something must be done to remedy the evil. The medical profession has unselfishly entered into this movement to educate the people how to avoid sickness, and how to keep well. That we physicians who live by curing diseases should have a desire to proclaim the gospel of health to the public ought surely to afford ample proof of our altruistic attitude. But the prevention of disease is a social problem, and must be met to a large extent by social remedies. The responsibility for these conditions, as well as the authority for improving them, lies with the people. All we physicians can do is to

lead the fight for the good of the people. Without public support, however, nothing satisfactory or permanent can be accomplished.

Health is to a large extent a purchaseable commodity, and can only be had by investing sufficient money to bring about healthful conditions. If I have seemed to speak earnestly on this subject, my reason for doing so is that sanitation is a very important and vital question affecting the interests of all the people, and not because I have any personal interest in this matter that is greater than yours; it is not. I am only a citizen of the State of Arkansas. My home is here, my interests are here, and I believe that every true citizen should have at heart the best interests of all the people, and that all physicians, regardless of schools or sects or pathies, should stand as a unit in support of all public health measures which we know will contribute so much to the peace and contentment, the prosperity and happiness of all the people. But sanitation does not rest its claims alone upon its economic importance. It has its humanitarian claims, based upon the dignity and sanctity of human life, and the right of everyone to the enjoyment not only of health, but of every other blessing which this beautiful world affords. Public health undertakes to guard and protect the sweetest and best interests of home life; the infant cementing the affections of its parents; the schoolgirl brightening the home; the adolescent boy and girl, with their inexperienced idealisms; the young man and young woman joining in wedlock; the father providing for the home, and the mother rearing her children; the mature man, with right doing, assuming the duties and responsibilities of highest citizenship; the aged counselor, "the justified mother of men," sitting upon her porch, surrounded by her children and her children's children, while the warm rays of the setting sun tinge with gold her whitened hair. These, my friends, I submit are questions of paramount importance, when we speak of sanitation, when we consider public health as a public asset.

One reason we are not always successful is that we sidestep the opportunity of a vacation or outing and shake hands with the temptation of dealing out advice and medicines from a shelf-worn and dusty attic of information. — Northumberland County (Penn.) Medical Society Notes.

PUBLIC HEALTH FROM AN ECONOMIC
STANDPOINT.*

By Henry Thibault, M. D.,
Scott.

The economic relations of public hygiene are so many and so intricately interwoven with every phase of human endeavor that it is possible in a short paper to discuss only few of the many problems that so frequently come up for consideration. What does it cost to be sick? What does it cost to keep well? Does the investment in a public health department pay a reasonable dividend? To what extent are our charitable institutions populated by patients suffering from diseases that could have been prevented more cheaply than they can be cured or treated? What portion of our tax burden is caused by the loss of labor from preventable illness? are all questions of economic and sanitary importance.

A quotation of miles of statistical figures dealing with these questions would serve only to burden your memories if you even gave so much heed to them as to attempt to remember them, so I am going to confine my remarks to a few homely examples of a more or less personal or domestic nature, and you have simply to multiply these insignificant incidents by the population of town, county, state or nation to get the idea of the magnitude of the economic waste there is in neglected sanitation.

In past years it has been fashionable for enthusiastic sanitarians to criticize the national government for spending more to safeguard the lives of pigs than it spends to safeguard the lives of babies. The national government is not to blame for this, because politicians, as a matter of self-preservation, are ever ready to give to all the people anything that they are sure that a majority of the people earnestly demand. Public health legislation contrary to public sentiment is a waste of time and legislative genius. For these reasons it has become one of the important duties of the medical profession to educate the public in the necessity and economy of public sanitation. Now, you that hear this paper may ask yourselves, "Is it possible, after all that has been written in the better

class of magazines and newspapers and said by public lecturers, that a majority of the people are still ignorant of the economic value of public sanitation?" They are, because the ones most in need of such education are the ignorant, in whom prejudice is strong and who do not read the better class of current literature, and who are not interested in public lectures that are not political.

The expenditure of time, money and energy necessary to educate the people to the point of accepting the principles of sanitation already worked out will be a much greater economic burden than the actual application of these principles. Ignorance is always wasteful.

Witness the example of an outbreak of yellow fever any time prior to the present decade. The people in the infected town dropped their business and fled. The people of the adjoining communities dropped their business and took up arms to keep the dreaded plague away. Thousands of dollars were spent in disinfecting uninfected inanimate objects, and thousands of dollars worth of serviceable property, clothing, bedding and even houses were burned. Terror and selfish fear overpowered reason, and until frost came and smote the then unsuspected mosquito, each day was a day of horror and each night a night of terror. When the plague was over, what price had been paid? The first unreasoning flight from the infected town had served only to spread the disaster. The "shotgun" quarantine had caused useless privations, had bred bitter enmity between neighboring communities and had done no good. The senseless exodus and useless destruction of property had added business depression, want and famine to the disaster, and hundreds of new graves, large and small, had come to make a paramount record of the futility of activity born of blind fear and ignorance. What figures can I write, what statistics can I quote that will tell what these people have lost? Who can say how many dollars is a ruined business, an empty home or a broken heart?

Now let us see what happened when yellow fever came to that town again. Certain physicians and their volunteer brigade have slept with yellow fever patients, have slept in the clothes and under bed clothes recently stained with the famous black vomit, and have found that so long as they are not bitten

*Read at the Public Health Meeting of the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 6, 1915.

by certain mosquitoes that they can communicate intimately and constantly with yellow fever cases and receive no harm. Then in an experiment in which two of them have lost their lives, they have allowed themselves to be bitten by the infected mosquitoes and have proven that this mosquito alone conveys yellow fever from man to man. All the habits and biological peculiarities of these mosquitoes have been learned, and this knowledge has been impressed on the minds of the people of this town. Now let us suppose that some Saturday six strangers come into town and lodge in two cheap boarding houses; on Sunday two of them move to the other side of town, and on Monday one is stricken with yellow fever, and by Tuesday night four of them, all in different parts of the town, are ill of the disease. The first great difference between this outbreak and the last one is that this time the health officer has had the whole truth published every day, and the other time it was suppressed until it could be hid no longer. When the housewife reads of this outbreak, instead of gathering up her children and rushing in terror to the nearest railroad station, she looks to see that all vases and flower pots are emptied of water. She looks to the condition of the screens and perhaps burns a little insect powder in each room, and, while it is burning, stands at the only undarkened window of that room to make sure that there are no mosquitoes in the house. Systematic destruction of mosquitoes and their breeding places is carried out all over the town, all houses infested with mosquitoes are fumigated and all the people use mosquito bars as an additional precaution. The consequences are that the yellow fever dies out for the want of a conveyance to travel from man to man. The toll has been the death of three of the strangers and two natives. Business in screen wire, mosquito bars, crude oil and insecticides has been better than usual, and other business has not suffered. This little outbreak has been simply a good practical lesson, while the first one was a calamity.

There are lesser evils than the great plagues that can be used as examples of the economy of preventing disease. A common negro farm hand had each year prior to 1901 spent from \$75.00 to \$150.00 for medical attention to his family, nearly all of whom had malaria most of the time. His house was in a dry,

sandy, well-cultivated field with no natural pools near it; but because the pump afforded "hard water" he kept several rain barrels around his house and in them raised thousands of mosquitoes, many of them of the malaria-carrying genus. His house was unscreened and he did not use mosquito bars. In 1901 he was induced to buy a cheap spigot for each of the water barrels so that he could keep oil on top of the water and draw the clean water from beneath it, to screen his windows with mosquito netting, and to put mosquito bars over his beds; as a result of this outlay of \$3.50, his medical bills since then have averaged less than \$15.00 a year. Investigation has shown that in the cotton farming region in which this man lives, for every dollar spent for medical attention in cases of malaria there has been a loss of labor equal to \$3.00. In other words, this man had been paying an unnecessary annual tax of \$475.00 which he now saves by an annual investment of less than \$5.00.

There are examples of economic loss through neglected sanitation that are much more common than the ones just given. How many of you parents ever think of isolating or keeping home from school the child with a common "bad cold"? Yet, if time permitted, I could give you an instance in which the neglect of this simple precaution cost the patrons of a small country school a useless expense of several hundred dollars, besides impairing the hearing of several people.

One year Pulaski County spent \$1,700.00 in the actual treatment of smallpox. The aggregate loss of time to the patients amounted to more than \$10,000.00, there were more than forty deaths, and the suffering and disfigurement cannot be estimated in dollars. All this could have been prevented for less than \$300.00.

Considering the popularity of life and accident insurance, it is strange that people are so prone to neglect sanitation. From a humane and economic standpoint, public and private sanitation offers the largest returns on the time and money invested in any life, health or accident insurance known.

NOTE.

In conclusion Dr. Thibault showed how the public health had been conserved in the construction of six miles of roadway in his county recently. At his suggestion the road commissioners stipulated that in the construction of the roadway the bar pits alongside should be continuous and self-emptying. This was

agreed to by the contractors and this precaution did not cost the taxpayers one cent additional. If done by the citizens it would have cost at least four hundred dollars. In 1913 there were eighty cases of malaria alongside of that road, causing in actual expense for medical attention and treatment not less than two hundred and forty dollars, estimating each case at three dollars, to which add the economic loss of day labor estimated at eight dollars each, or about six hundred and forty dollars. The road was completed in the fall of 1913. It passed through a thickly settled community, and of course the opportunity for infection is multiplied by the number of inhabitants alongside the road. In the year 1914, during the same period of time, they had six cases of malaria, which were no doubt due to having water barrels under the eaves of some of the houses and neglecting to keep the screen doors of their porches closed at all times. He deplored the fact that some people would rather take medicine than exert themselves to preserve health, and placed these in the same category as the man who ate doughnuts and then took tablets to relieve his indigestion. If he had used a rational diet he would not have had to buy any tablets.

TANLAC.—Tanlac (The Cooper Medicine Co., Dayton, O.) is a "tonic and system purifier" and is exploited to the public by means of extravagance and absurd claims. From an examination made in the A. M. A. Chemical Laboratory it appears that Tanlac is essentially a vinous extract which contains 15.7 per cent. absolute alcohol by volume, a bitter drug (such as gentian), an emodin-bearing drug (such as buckthorn, rhubarb or cascara), a berberine-bearing drug devoid of hydrastine (such as berberis aquifolium), glycyrrhizic acid (from licorice), and flavored with wild cherry and to which has been added a relatively large proportion of glycerin. The "Tanlac Laxative Tablets" which accompany Tanlac contained phenolphthalein (Journal A. M. A., June 5, 1915, p. 1930).

E-LEP-TINE.—E-Lep-Time is an "epilepsy cure." According to the Indiana State Board of Health, it contained sodium and potassium bromides 16 per cent., alcohol and ammonium valerate (Journal A. M. A., June 12, 1915, p. 2006).

HERBETTA CURINE.—A package of Herbetta Curine contained three envelopes, labeled 1, 2 and 3, respectively, and in addition a number of red tablets. The A. M. A. Chemical Laboratory found that No. 1 consisted of tablets which contained soluble iron phosphate; No. 2, of tablets which contained some "bitter tonic," and No. 3, of tablets responding to tests for aloes and aloin. The red tablets were composed essentially of strontium and

potassium bromide (Journal A. M. A., June 12, 1915, p. 2006).

LEPSO.—The A. M. A. Chemical Laboratory found this to contain bromides, equivalent to 51 grains potassium bromide per dose of one-half ounce (Journal A. M. A., June 12, 1915, p. 2006).

IODEX.—Iodex (Menley and James, Ltd., New York) is said to contain 5 per cent. of iodine; the advertising suggests that the effects of free iodine are to be obtained from the preparation, which yet is said not to stain the skin. It is also claimed that thirty minutes after inunction, iodine can be found in the urine. The chemist of the A. M. A. Chemical Laboratory, on examination found that Iodex contained only about half the claimed amount of iodine, that the iodine did not behave as free iodine and that after inunction of Iodex, iodine could not be found in the urine. Because of these findings and because of the unwarranted therapeutic claims made for the preparation, the Council on Pharmacy and Chemistry held Iodex ineligible for New and Non-official Remedies (Journal A. M. A., June 19, 1915, p. 2085).

VENODINE.—Venodine (The Intravenous Products Co., Denver) was stated to be "an intravenous iodine compound" put up in ampules, each of which contains "28 grains of sodium iodide, $\frac{1}{8}$ grain each of beechwood creosote and guaiacol in a suitable vehicle, and excipients to enhance its compatibility with the circulating blood." The "therapeutic indications" were said to include "infectious diseases, such as syphilis, tuberculosis, bronchitis, bacteremias associated with chronic and acute nephritis (Bright's disease), and other infections." The Council on Pharmacy and Chemistry found Venodine ineligible for New and Non-official Remedies, because it was exploited under unwarranted and grossly exaggerated therapeutic claims; because neither the name nor the advertising matter indicated that it was a preparation of the well-known sodium iodide; and because the combination of two such similar substances as creosote and guaiacol is unscientific, adding mystery to the preparation without increasing its efficiency (Journal A. M. A., June 26, 1915, p. 2155).

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Editorials.

OUR NEW PRESIDENT.

Dr. J. C. Wallis of Arkadelphia, elected president of the Arkansas Medical Society at the annual meeting in May, is still young at sixty, as years are counted in this age of achievement by men past the meridian of life. He is a native of Missouri; of Tennessee parentage, but moved to Arkansas when a boy and received his education at Batesville and Mountain Home. He has lived in Arkadelphia since 1870, where he has built up a large practice and where he is highly esteemed alike as physician and citizen.

Dr. Wallis graduated in medicine from the Jefferson Medical College, Philadelphia, in 1877, and at once began to practice in his home town. He has taken extensive and frequent post-graduate courses in New York, Chicago and at St. Mary's Hospital, Rochester. He is a veteran of the Arkansas Medical Society, having become a member soon after its organization. He has been regular in attendance and it is due him that the society should recognize his loyalty and service. He has served the society on many important committees and has always worked for its advancement. Dr. Wallis has been a member of the State Board of Medical Examiners for six years and is now president of the board.

CANCER PREVENTION, TREATMENT, AND FAKE "CURES."

This issue of The Journal is made up mostly of original articles, clippings and abstracts pertaining to cancer and public health subjects. This is the result of a resolution offered at the annual meeting by Dr. H. Thibault, following a previous one offered by Dr. Earle Hunt requesting that we devote the July number to cancer. This action being prompted by a letter from the Commission on Cancer from the Pennsylvania Medical Society, asking that this be done.

With nearly fifty thousand deaths annually from cancer in the registration area alone in the United States, no subject can be of much greater importance than that of prevention and treatment of the scourge. As the registration area comprises only sixty per cent of the population, it is estimated that the annual mortality from cancer is not less than seventy-five thousand; and that is probably too low an estimate. It is very generally conceded that, taken in its early stage, cancer is curable. It is purely a local disease in its incipency; not a blood disorder, and extirpation can practically be relied upon to effect a permanent cure. In the case of senile warts, skin eruptions and other first causes or potential seeds of cancer, elimination will prevent cancer.

Very many causes for the immense mortality from cancer exist. Among them primarily are ignorance and diffidence; which, indeed, may be given as the leading causes of many preventable diseases. Through ignorance men and women scratch and irritate moles and skin eruptions, and herein lies one of the potent causes of cancer. Diffidence leads to neglect in the early stage of cancer, and delay generally means death; for after the blood becomes inoculated with the virus and the cancer has ceased to be strictly local in character, cure by knife or otherwise is well nigh hopeless. Too often when the disease is in the incipient stage the patient fails to seek medical advice. This is especially true of women. One may understand the delicacy which influences a woman when the symptoms appear in the uterus, foolish as that prudery may be; but it is less easy to understand such qualms when the affection is of the breast. Yet it is well known that women will conceal the fact that they have pains or lumps in the breast, or perhaps exudations from the nipples, even from members

of their families. These early symptoms of cancer should promptly receive attention when cure is easy. Later, cure or arrest of the cancerous growth is alike impossible. Moles, warts on the lips or elsewhere, swelling of the breast, pains in the uterus or stomach, all may develop cancer, and the one thing to do is to consult a reliable physician and permit an examination to be made. Of the thousands and thousands of cases of cancer developing annually, it is safe to say that the greater number could be safely extirpated if taken in time.

The idea that cancer is hereditary is responsible for much of this diffidence in seeking advice. People with no family history of cancer are apt to imagine they are immune, and attribute any symptoms they may experience to any but the right cause. Cancer is not hereditary, nor is there hereditary tendency to acquire it. The fact that more than one of a family has died from it is merely coincidental. If people can be brought to understand that a family history of freedom from cancer does not render them immune, they are more likely to have a wholesome fear of possibly becoming victims of it, and will be more ready to seek advice when untoward symptoms appear.

Another grave cause of fatal delay is the resort to the vile quacks who advertise so-called cancer "cures." The impudence of these charlatans almost surpasses belief. One in St. Louis boldly advertised himself as occupying a chair in an alleged medical college which had no existence outside of his fertile imagination. All of them can print "testimonials" from the "cured." Than testimonials, the most valuable asset of the quack, nothing is easier to obtain. There is always an over-supply of hypochondriacs, who first imagine they are sick and then imagine they are cured. That is why there is always a ready market for patent medicines throughout the world. Other testimonials are boldly invented, for who is going to make inquiry as to the identity of the writer of a testimonial a thousand miles away? It is noticeable that the testimonials of the advertising quack are always from people far distant from the city in which the advertisement is published. No less than eight of such fakers have been recently denied the use of the United States mails under fraud orders. For the benefit of prospective victims their names

and addresses are given as follows: Rupert Wells, alias Dennis Dupuis, St. Louis; the Chamlees Cancer Cure, St. Louis and Los Angeles; the Curry Cancer Cure, Lebanon, O.; the B. F. Bye Cancer Cure, Indianapolis; the W. O. Bye Cancer Cure, Kansas City; the Leach Cancer Cure, Indianapolis; the Toxo-Absorbent Cancer Cure, Rochester, N. Y.; the "Drs. Mixer" Cancer Cure, Hastings, Mich.

THE FIGHT AGAINST CANCER.

Ten years ago it was found that tumors could be transplanted in mice. This discovery revolutionized the study of cancer. Great expectations were aroused and it was believed it was only a question of time until the problem of the cause and cure of malignant disease would be solved. That was a decade ago and some authorities believe that we are no nearer the facts today than we were then. In the case of cancer, any expectation of a single discovery solving the problem is more and more coming to be recognized as unwarranted. Cancer is not a single definite disease like appendicitis. It is rather a name which has been given to a group of entirely distinct diseases, which are different in their history, origin, mode of treatment and prospect of cure, although they are all forms of new and lawless cell growth. For this reason, we are not likely to see any sudden and sensational advance toward the knowledge of a single cause and cure of cancer. It seems now more likely that a steady reduction in the mortality from cancer will come about through the operation of many different factors. Of chief importance will be the application in many directions of a better knowledge of the conditions under which cancer arises—that is to say, a better knowledge of the immediate rather than the remote causes of the disease. Chief among these is irritation. In the removal of all sources of chronic irritation and in prompt attention to conditions which are now recognized as likely to result in cancer is to be found the only available means of actually preventing this disease. On the other hand, even when the development of cancer itself is not prevented, it is capable of complete removal from the body, resulting in a cure of the patient in a far larger number of cases than at present. To bring this about and to

reduce the death rate from malignant diseases is the object of the present widespread campaign of education in regard to early symptoms and the need of prompt recognition and surgical treatment.

Abstracts and Clippings.

CANCER.

The etiology of cancer in the light of recent cancer research is studied by H. R. Gaylord, Buffalo (Journal A. M. A., March 20, 1915). He says perhaps the more important problems in cancer research center in the so-called parasitic theory. Through the discoveries of filterable viruses, we may assume that this hypothesis is at last justified. The question that will mostly concern us is whether this theory is universally applicable. The indications are that the investigators are gradually coinciding. We now generally recognize predispositions to cancer, and agencies bringing about the cancerous conditions. They are of varied nature, and so far as may be determined may be summed up as chronic irritation. In exceptional cases, even a single trauma may supply it, but in the high percentage of cases the local predisposing features may be definitely determined. There are also more constitutional factors, and experiments on mice and other animals have shown a definite constitutional susceptibility that is transmissible in the belief of many. It is not possible, however, that there is a single cancer parasite. There are probably many, each specific for one type of tissue, and a number of these have been determined experimentally in the lower animals. A malignant neoplasm may not always present all the characteristics included in the definitions. The power to form metastases may be lacking and it may appear in the course of transplanting the neoplasms. The existence of an immunity to transplanted cancer has been established in mice by Gaylord and others, and the inoculation of tumors of an alien species into an animal has shown that the entire immune mechanism is not yet established in the early stages of development. It is interesting to note here that one of the most effective normal tissues available in setting up resistance to implanted cancer is the spleen, which suggests it as the principal force of antibody formation. Attempts have been

made to influence human cancer with cancer cells by vaccination, and this has been to some extent demonstrated. Cancer cells introduced into the blood in the early stages of the disease do not always produce metastases, and Goldman's view that the blood exerts an immunity is supported. The complement deviation and Aberhalden reactions show that the blood contains antibodies and antiferments, but these reactions are nonspecific. Ether and chloroform anesthesia seem to favor the growth of cancer, and every surgeon, Gaylord says, is having experience of finding cancer cases made worse by surgical interference. Something similar has been noted in the treatment of tumors by radiation. In ending the paper, Gaylord mentions the inclusions in cancer, and says that specific inclusions are more or less characteristic of a considerable growth of infectious diseases caused by filterable viruses. There are thirty-odd known filterable viruses, including three specific ones causing neoplasms, discovered by Rous. This widens the scope of cancer research, and it is possible that we may learn the true significance of inclusions in these diseases and in cancer, which Gaylord says is a question left for future investigation.

RECENT WORK ON CANCER.

There are two phases of recent work on cancer that perhaps may be discussed briefly with interest at this particular time: the chemotherapy of cancer and the question of inheritability of a tendency to the development of cancer.

The first topic receives extended and critical consideration at the hands of Weil in The Journal of the American Medical Association for April 17, 1915, p. 1283. Unfortunately, there is no question but that the efforts at chemotherapy of cancer in man and animals up to this moment have not been successful. Even the results reported by Wassermann in mice treated with selenium and cosin for transplanted cancers now appear utterly insufficient to justify the hopes to which they gave rise when first announced.

In human cancer Weil proposes as the test of effective chemotherapy, reduction in the size of the growth not explainable by natural processes. "This is an altogether reasonable test," says The Journal, "and well calculated to do justice to even minimum therapeutic

effects, but when judged by this test all the various forms of cure of human cancer by chemical means are found to be without virtue. Whatever modifications of the disease that seem to be produced by these means are such as occur spontaneously, the alleged indications of the vainly hoped for cure being simply another exemplification of the post hoc ergo propter hoc fallacy in reasoning. Consequently, an absolutely and uncompromisingly nihilistic attitude on the part of physicians with respect to cancer drugs is warranted and demanded at the present time in order that false hopes may not lead timid patients to postpone radical surgical treatment until it is too late.

"While the results of the work on chemotherapy must be set down as negative, the remarkable studies of Maude Slye on the inheritance of cancer in mice are yielding positive results of great significance and interest. Miss Slye's work shows that in mice the tendency to develop cancer is transmitted from generation to generation in exact accord with the laws of heredity so that it can be bred into and out of strains of mice at will. She has bred cancer through ten generations, and in the stock of ten thousand mice under observation at present, spontaneous cancer is always present, arising almost without exception in strains of known cancerous ancestry. The proper representatives of such strains of mice 'carry into the strain with which they are hybridized as inevitably as an albino carries albinism into a pigmented strain with which it is hybridized, and with exactly parallel behavior of the character.'

"It is not cancer—carcinoma or sarcoma—as such that is transmitted, but the tendency of the cells to produce cancer under suitable conditions, which appear to arise especially as the results of all kinds of local irritation, reminding us of the undoubted role that ordinary chronic irritation plays in human cancer.

"The mass of evidence presented by Miss Slye certainly warrants her generalization that in mice cancer tendency is a transmissible character, whatever the actual cause of cancer may be. This is a positive result, the full significance of which makes it one of the great contributions to our knowledge of cancer. While the exact study of the influence of heredity in human cancer at present is practically blocked because enough facts can-

not be obtained, we do not know of any exceptions or modifications to the great laws of heredity, which appear to be immutable and inevitable, that would justify an opinion to the effect that the observations on the inheritability of cancer tendency in mice are not applicable to man. Hence, the final lesson drawn by Miss Slye and based on the idea that cancer is not transmitted as such, but as a tendency to occur from a given provocation, probably in the form of over-irritation, must be accepted as sound and practical: 'The elimination as far as possible of all forms of over-irritation to the tissues of an individual of high cancer ancestry should go far to eliminate the provocation of cancer; and the eugenic control of matings so that cancer shall at least not be potential on both sides of the hybrid cross ought to eventuate in a considerable decrease in the frequency of human cancer.' "

DIAGNOSIS OF CANCER.

Otto Lowy, Newark, N. J. (Journal A. M. A., May 8, 1913), points out some of the possibilities of error of the Abderhalden test by the thimble method through the varying condition of the blood of the patient, the possible contamination of the vessels, and the impossibility of sterilizing the thimbles, as well as their liability to be bruised, and the different degrees of intensity of heat altogether requiring most extremely painstaking care to obtain any accurate results. He has been using instead the Van Slyke aminonitrogen apparatus, devised for measuring the aminonitrogen content of the blood. "The rationale of this method is that we are able to determine accurately the amount of aminonitrogen liberated or given off in a given quantity of serum. We add dried cancer substrate (prepared in the same manner as for the thimble method and then dried) to the suspected serum in a test tube and take another test tube which contains suspected serum alone, cover the serum with a layer of toluene and incubate for twenty-four hours. If the suspected serum is the serum of a cancer patient and contains a sufficient quantity of the proteolytic enzyme, a reaction will take place. After measuring the amount of aminonitrogen liberated from the serum alone, and then measuring the amount of aminonitrogen liberated from the serum plus substrate, we find that the amount of the latter is increased over

the former anywhere from 0.05 to 0.15 c.c." Eighty-two cases were examined by him, forty-two of which were clinically and pathologically diagnosed as cases of cancer. In three cancer cases, he observed that the amount of nitrogen liberated in the serum plus the substrate was decreased anywhere from 0.4 to 0.1 under the amount of nitrogen liberated from the serum. At that time he did not use the dried cancer substrate, and Dr. Van Slyke suggested that the amount of fluid might have diluted the serum enough to account for the decrease. Care must be taken to rid the substrate of all soluble proteins, and it should be tested to determine whether it gives off any nitrogen. In that case it should be discarded. The examinations are shown in the table, and Lowy's conclusions are as follows: "While the number of cases examined is small, nevertheless, I believe that if Abderhalden's theory should prove to be the correct one, the Van Slyke aminonitrogen apparatus will give us more satisfactory results than the thimble method, for the following reasons: 1. The Van Slyke method is very accurate if performed properly. 2. The blood of the patient may be taken at any time, even shortly after meals. The addition of hemoglobin does not invalidate the test. The percentage obtained in my series of cases should not be considered absolute, for we are unable to figure an absolute percentage on such a small number of cases. It would be preferable to have examined at least 500 cases before any definite percentage of results can be announced."

SKIN CANCER.

Prickle-cell and basal-cell skin cancers are the subject of a paper by H. H. Hazen, Washington, D. C. (*Journal A. M. A.*, March 20, 1915). Distinction between the two is denied by Adami and some other pathologists. It seems to Hazen that the researches of Krompecher and Bloodgood have definitely established the differences. He thinks it wise to restate the question in view of certain newer forms of treatment that threaten to neglect the distinction between the two. The basal-cell neoplasms frequently spring from seborrhoeic keratoses, from epidermal nodules, small sebaceous cysts or possibly benign epithelial growths, as well as from various other keratoses such as those due to arsenic, so-called papillomas and much more rarely from the

lesions of lupus, lues, psoriasis and blastomycosis. Pickle-cell cancers do not often originate from seborrhoeic keratosis, unless on the hand, but they do arise from Roentgen-ray burns, scars, etc. According to Petersen some basal-cell cancers seem to have a multicentric origin, and Hazen agrees with him. This is important on account of the possibility of foci being missed in treatment. On the other hand, Petersen believes that the prickle-cell and squamous-cell tumors have only one point of origin. Basal-cell cancers are most frequent on the face, especially on the eyelids and nasofacial grooves. The prickle-cell cancers are most common on the mucous membrane, especially of the lip. They form the vast majority of all cancers of the extremities, and may occur anywhere on the skin. In their earliest stages, either type shows itself as a slight nodule that speedily forms an indurated ulcer with a crust. The fully developed squamous-cell cancer is often more or less verrucosed, while the surface of a basal-cell cancer is comparatively smooth. Basal-cell growths never metastasize, according to Hazen, unless they change into a prickle-cell type. On the other hand, the prickle-cell cancers nearly always metastasize to the regional lymphatics, though this may not occur for a good many years. The prickle-cell cancer infiltrates deeply, while the basal-cell cancers are more smooth and the invasion is less extensive. The microscopic appearances are noted. It is frequently impossible to diagnose the variety in the earliest stages, except by the history of the precancerous lesion and its location. The rapidity of the growth is of great importance, and the only safe method of microscopically determining the diagnosis is by excision of the whole growth. The prognosis of a basal-cell cancer, therefore, is much the more suitable. Excision is the advisable treatment. The Roentgen ray when it has failed, has probably not had sufficient penetration, and Hazen thinks it doubtful whether radium can do anything more than the ray. In uncertain cases, we should always consider the first essential an accurate diagnosis, and only the knife or actual cautery should be employed in the removal. A trained pathologist can usually diagnose correctly by the gross specimen, but in many cases a frozen section should be made at once, and if found to be of the prickle-cell type, the glands should be removed at the same sit-

ting. In very early cancers that have not existed for more than a month, a local operation will probably suffice.

GASTRIC CANCER.

Gastric cancer in its medical aspects is the subject of the address of Dr. J. C. Bloodgood, president of the American Gastro-Enterological Society at Baltimore, May 10, 1915 (Journal A. M. A., June 19, 1915). His observations were based on 184 cases of carcinoma of the stomach, seen in the Surgical Pathological Laboratory of the Johns Hopkins Hospital during a period of almost twenty-five years. He finds from a reading of the literature that those surgical clinics in which the total number of cancers of the stomach were larger than the total number of gastric ulcers had a larger percentage of inoperable cancers and a smaller percentage of cures in which resection was possible than those clinics in which ulcers of the stomach were more numerous than cancer. In the Johns Hopkins Surgical Pathological Laboratory up to date the figures are: Stomach ulcer, 132 cases; cancer, 184 cases. The proportion of operable and inoperable cases is as follows: No operation, 45 cases; exploratory laparotomy, 49 cases; gastro-enterostomy, 41 cases; total inoperable cases, 135; resection, operable cases, 49. Thus the operable cases are only 26 per cent. The table given shows that experience with cancer of the stomach really did not begin until 1905. From 1890 until 1905 there were but 35 cases, and from 1905 until 1910 there were 76, more cases being referred to the surgeon than previously. In the next five years, from 1910 to 1915, a larger number are being referred, up to date 73, of which 39 per cent were operable, showing that cases are being recognized earlier and referred to surgical treatment at a more favorable period. Up to 1910 there were only two cures, a little less than 10 per cent of the operable cases. Among the 28 cases of resection in the period from 1910 to 1915 there is one patient still living nearly five years after being operated on, and if the others living remain well the percentage of cures may be increased to nearly 20 per cent. The figures confirm the impression gained from the literature that with the greater recognized number of ulcers of the stomach than of cancers there is an increased proportion

of cures. A second table is given to show the duration of disease to operability, taking as duration the period of continuous symptoms. The chief symptom has been abdominal discomfort in the stomach region aggravated by eating, nausea, belching, vomiting, vomiting of blood, and blood in the stools. The percentage of operable cases in which symptoms have been present only three months is 29. With six months it falls to 23, and with twelve months' duration, 21. Bloodgood has found this to be about the proportion in cancer in other situations. If the cancer is preceded by a nonmalignant lesion there is no definite time in which it may develop; we may find operable cases after long, lasting symptoms, and it seems impossible, in the early stages, to differentiate cancer from ulcer of the stomach. His figures convince Bloodgood that many cases of cancer of the stomach arise in nonmalignant lesions, probably ulcer. A large number of patients go a long time with continuous symptoms before calling for surgical aid, a few seek help within a few months after relatively slight symptoms, but have undergone rigid examination by good internists. This, Bloodgood thinks, is the key to the situation. The public should be educated that epigastric discomforts aggravated by eating solid food is a sufficient warning, not that they mean cancer, but that they should have a competent physician look into the case. Inoperability and risk of mortality increase with delay. Three cases in which the cure has lasted for a number of years, from four to eight, are reported.

MAMMARY CANCER.

The subject of mammary cancer is discussed by W. L. Rodman, Philadelphia (Journal A. M. A., Feb. 27, 1915), in an address delivered before the Southern Medical Association at Richmond. Mammary cancer is second in frequency only to cancer of the stomach, and the importance of early diagnosis is emphasized. Early in the disease, a patient seems to be generally in perfect health, and the disease is at this time purely local. Later, the other symptoms of glandular enlargements and metastases become prominent. The surgical method is the best for early diagnosis. If the small growth is excised with a fair amount of the surrounding tissue so as to get around any outlying cancer cells, the wound

quickly heals and that is the end of it. An early clinical diagnosis cannot always be made, but it usually can, and when in doubt, the only rational procedure is to remove the tumor with a reasonable amount of surrounding tissue and submit it to an immediate pathologic examination by freezing. Mammary cancer is not always by any means a disease of middle life, or late life. Twenty per cent of it occurs in women under forty, and Rodman has recently met a case in a girl of seventeen, and when it does occur in young women it is more fatal, because of the numerousness and patency of the lymphatic vessels, it becomes more quickly generalized. The axillary glands are practically always infected within a year, and the quicker, the younger the patient. The only safe plan is to obtain the consent of the patient to a complete operation, should it be necessary, the surgeon being guided by the report of the pathologist based on frozen sections. He alludes to the high proportion of malignant degeneration in abnormal involution cases and the uselessness and danger of partial operations, even if the malignant condition has not been absolutely determined. Properly and early treated mammary cancer is curable, and the deaths are not the fault of the cancer, but of the delaying physician. He says: "It passeth all understanding why women and family physicians will, in spite of all that we know, insist on playing with fire." He prefers to limit his statistics to private patients concerning whom everything is known, rather than to include ward cases which come with partial history and imperfect knowledge. Of fifty private patients taken consecutively, thirty-six are well three or more years after operation, that is, 72 per cent, and a tabulated summary of these cases is given and special points noted.

CANCER OF THE BREAST.

Carl Beck, Chicago (Journal A. M. A., May 22, 1915), recommends a more extensive operation than has been used in cases of extensive recurrent and hopeless cancer of the breast. The only thing generally thought best to do is to apply Roentgen rays or Coley's fluid and morphin. In the course of the last few years he has been able to save a few such cases by the operation of exarticulation of the whole shoulder girdle, including the clavicle, arm and scapula, with the plexus and vessels of the infected side, and the ribs,

should they seem invaded by the carcinoma. This method may have been used elsewhere, but the procedure is not common, and its publication may be of value. A definite plan can not be prescribed in detail. The individual case must be considered. It is a delicate as well as an extensive operation, and attended with great shock to a person who is not often in the best condition. "On the whole, however, it begins with the formation of a large skin flap destined to cover the whole area of the defect, the exarticulation of the clavicle following, then dissection of the tissues of the neck and axilla in one block, ligation of every vessel as it is reached, cautious cutting on one nerve after the other, and lastly, the separation and excision of the scapula. Altogether, I have done this operation eight times in nine years. All cases were desperate; some of the patients operated on several times by myself or others, were all considered inoperable, some of them having consulted the best operators of the country, who declared surgical operations useless." The cases are reported, and two practical recoveries have been obtained, while another patient did well for three years before she was lost sight of. While the results are not ideal, they were good considering the desperate character of the cases, and the most important point of all seems to Beck to be the fact that there is some hope even in these most hopeless cases, when surgery is carried to its limit.

DIRECTIONS FOR CANCER PATIENTS.

(As Given by the New York Skin and Cancer Hospital.)

1. Cancer is a serious disease which should receive constant medical care from the time it is first suspected.
2. "Cancer Specialists," who advertise, should be avoided.
3. Cancer is not contagious, and there is no danger of communicating the disease to others.
4. Cancer is not a disgraceful disease, and there is no reason for being ashamed of it or hiding it.
5. As soon as cancer is suspected, whether there be a lump or sore or other symptoms, it should be at once cared for by a competent medical man, as the earlier it is treated the more prospect there is of its being cured.
6. Anything suspected to be cancer should not be handled or squeezed, but should be

kept from all irritation, as all this spreads the trouble and renders the cure more difficult.

7. When it is decided that a surgical operation is necessary this should be done completely at the earliest possible moment; delay is dangerous.

8. The proper medical treatment of cancer should never be neglected, both at the very beginning, and also after an operation has been performed.

9. It is not necessary to operate on every cancer, x-ray and radium are often of value, and the disease may disappear and remain absent under proper dietetic and medical treatment.

10. This treatment consists in an absolutely vegetarian diet, with continuous proper medication, for a long time.

11. To get favorable results this treatment should be kept up strictly until discontinued by the physician.

To assist in carrying out a strictly vegetarian diet, a diet list for cancer is here given, which should be closely adhered to. Coffee, chocolate and cocoa, as also alcoholic drinks, even beer, are harmful and must be avoided. The rules given at the end are also to be strictly observed.

DIET FOR CANCER.

FIRST DAY.

Breakfast.	Dinner.
4 ounces Rice	5 ounces Vegetable soup
3 " Cornbread	3 " Baked potatoes
1½ " Butter	3 " Stewed celery
½ " Sugar	1 " Graham bread
Hot water	1½ " Butter
	1 Fresh apple

Supper.

4 ounces Rolled oats
2 " White bread
1½ " Butter
4 " Stewed prunes
¼ " Sugar
Very weak tea

SECOND DAY.

Breakfast.	Dinner.
Orange	5 ounces Pea soup
4 ounces Hominy	3 " Macaroni
2 " Graham toast	3 " String beans
1½ " Butter	3 " Carrots
½ " Sugar	2 " Bread
Postum	1½ " Butter
	Dates

Supper.

4 ounces Cream of wheat
2 " Graham toast
1½ " Baked apple
2 " Crackers
1½ " Butter
¼ " Sugar
Very weak tea

THIRD DAY.

Breakfast.	Dinner.
Banana	5 ounces Corn soup
4 ounces Pettijohn	3 " Baked potatoes
2 " White bread	3 " Spinach
1½ " Butter	3 " Boiled onions
½ " Sugar	2 " Bread
Hot water	1½ " Butter
	Raisins

Supper.

4 ounces Farina
4 " Stewed figs
2 " Graham crackers
1½ " Butter
¼ " Sugar
Very weak tea

FOURTH DAY.

Breakfast.	Dinner.
Raw apple	5 ounces Vegetable soup
4 ounces Cornmeal mush	4 " Baked beans
2 " Graham bread	3 " Cauliflower
1½ " Butter	3 " Asparagus
½ " Sugar	2 " Bread
Postum	¼ " Butter
	Orange

Supper.

4 ounces Rice
4 " Stewed prunes
2 " Graham crackers
1½ " Butter
¼ " Sugar
Very weak tea

FIFTH DAY.

Breakfast.	Dinner.
Orange	5 ounces Sago soup
4 ounces Cracked wheat	4 " Spaghetti
3 " Corn muffins	3 " Lima beans
1½ " Butter	3 " Boiled onions
½ " Sugar	1½ " Butter
Hot water	Dates

Supper.

4 ounces Cream of wheat
Sliced orange
2 ounces Oatmeal crackers
1½ " Butter
¼ " Sugar
Very weak tea

SIXTH DAY.

Breakfast.	Dinner.
4 ounces Samp	5 ounces Celery soup
2 " Graham toast	4 " Baked potatoes
1½ " Butter	3 " Carrots
½ " Sugar	3 " Spinach
Postum	1½ " Butter
	2 " Bread
	Figs

Supper.

4 ounces Wheatena
4 " Stewed figs
2 " Unceda biscuit
1½ " Butter
¼ " Sugar
Very weak tea

Repeat this bill of fare on successive days.

Some interchange of the different articles may be made, to suit the appetite or convenience of patients, but in the main this bill of fare should be followed.

Bread at least twenty-four hours old may be taken as desired.

A little old cheese may be grated on the macaroni and spaghetti, but not cooked with it.

One boiled or poached egg may be taken for breakfast every other day, and very fat bacon on the alternate days, unless otherwise directed by the physician.

It is desirable to eat the skin of potatoes.

Each and every meal should be eaten very slowly, for half an hour, with long chewing.

One tumbler of water is to be taken with each meal, but not when food is in the mouth; also a tumbler full of hot water, one hour before breakfast and supper.

No milk is to be taken unless specially ordered.

The cereals are to be boiled with water, three or four hours, and may be cooked in the afternoon and heated in the morning, adding more water. Rice, farina, and cream of wheat require only an hour. Chopped dates, figs, raisins, or currants may be added to cereals when desired.

All the cereals are to be served very hot, on hot plates, and eaten with butter and salt to taste (not milk and sugar). They are to be eaten very slowly, with a fork and very well chewed.

The crackers with supper may be varied to suit the taste; they should be eaten dry, with butter, and chewed very thoroughly.

Nothing should be taken between meals, unless especially directed, and the life should be as simple and healthful as possible, with early and long bed hours.

“ARTICLES OF FAITH” CONCERNING CANCER.*

(A Platform Upon Which to Unite in the Campaign of Education.)

1. That the hereditary and congenital acquirement of cancer are subjects which require much more study before any definite conclusions can be formed concerning them.

*During the four-day Cancer Educational Campaign, held under the auspices of the Vermont State Medical Society, June 8-11, 1915, Dr. William Seaman Bainbridge of New York City presented the accompanying twenty-one “Articles of Faith” at several sessions. They form the conclusion of a paper entitled “THE CANCER PATIENT’S DILEMMA. A Plea for the Standardization of What the Public Should Be Taught in the Campaign of Education Concerning Cancer,” which Dr. Bainbridge read at one of the sessions, and which appears in full in the cancer number of the New York Medical Journal, July 3, 1915.

and that, in the light of our present knowledge, they hold no special element of alarm.

2. That the contagiousness or infectiousness of cancer is far from proved, the evidence to support this theory being so incomplete and inconclusive that the public need have no concern regarding it.

3. That the communication of cancer from man to man is so rare, if it really occurs at all, that it may be practically disregarded.

4. That those members of the public in charge of or in contact with sufferers from cancer with external manifestations, or discharges of any kind, need at most take the same precautionary measures as would be adopted in the care of any ulcer or open septic wound.

5. That in the care of patients with cancer there is much less danger to the attendant from any possible acquirement of cancer than there is of septic infection, or blood poisoning from pus organisms.

6. That in cancer, as in all other disease, attention to diet, exercise and proper hygienic surroundings is of distinct value.

7. That, notwithstanding the possibility of underlying general factors, cancer may, for all practical purposes, be at present regarded as local in its beginnings.

8. That, when accessible, it may, in its incipency, be removed so perfectly by radical operation that the chances are overwhelmingly in favor of its non-recurrence.

9. That, when once it has advanced beyond the stage of cure, suffering in many cases may be palliated and life prolonged by surgical and other means.

10. That while other methods of treatment may, in some cases, offer hope for the cancer victim, the evidence is conclusive that surgery, for operable cases, affords the surest present means of cure.

11. That among the many advances in and additions to cancer treatment, the improvements in and extensions of surgical procedure surpass those in any other line, and fully maintain the preëminent position of surgical palliation and cure.

12. That there is strong reason to believe that the individual risk of cancer can be diminished by the eradication, where such exist, of certain conditions which have come to be regarded as predisposing factors in its production.

13. That some occupations, notably working in pitch, tar, paraffin, analine or soot,

and with x-rays, if not safeguarded, are conducive to the production of cancer, presumably on account of the chronic irritation or inflammation caused.

14. That prominent among these predisposing factors, for which one should be on guard, are: general lowered nutrition; chronic irritation and inflammation; repeated acute trauma; cicatricial tissue, such as lupus and other scars, and burns; benign tumors—warts, moles, nevi (birth-marks), etc.; also that changes occurring in the character of such tumors and tissues, as well as the occurrence of any abnormal discharge from any part of body, especially if blood-stained, are to be regarded as suspicious.

15. That while there is some evidence that cancer is increasing, such evidence does not justify and present alarm.

16. That suggestions which are put forward from time to time regarding eugenic, dietetic and other means of limiting cancer, should not be accepted by the public until definitely endorsed by the consensus of expert opinion. Such consensus does not exist today.

17. That so far as we know there is nothing in the origin of cancer that calls for a feeling of shame or the necessity of concealment.

18. That it will be promotive of good results if members of the public who are anxious about their health and those who wish to preserve it will, on the one hand, avoid assuming themselves to be sufferers from one or another dreadful disease, but, on the other hand, will submit themselves periodically to the family physician for a general overhauling.

19. That at all times and under all conditions there is much to be hoped for and nothing to be feared from living a normal and moderate life.

20. That the finding of any abnormal condition about the body should be taken as an indication for competent professional and not personal attention.

21. That watchwords for the public until "the day dawns" and the cancer problem is solved, are: Alertness without apprehension, hope without neglect, early and efficient examination where there is doubt, early and effi-

cient treatment when the doubt has been determined.

Personals and News Items.

Dr. Robert Caldwell has returned from San Francisco.

Dr. J. E. McMahan, of Conway, visited in Little Rock this month.

Dr. W. H. Toland, of Nashville, is attending the clinics in New York City.

Dr. S. J. Wolferman, of Fort Smith, visited in Little Rock this month.

Dr. T. E. Porter, of Hazen, visited in Little Rock last month.

Dr. and Mrs. R. L. Saxon, of Little Rock, will spend the summer in Colorado Springs, Col.

Dr. J. G. Eberle, of Fort Smith, attended a meeting of the Pulaski County Medical Society during his recent visit to Little Rock.

Dr. Sam'l N. Hutchison, of Horn Lake, Miss., a recent graduate of the University of Arkansas Medical Department, has located at Joiner.

Dr. M. W. Owens, of Nashville, has located at Truman; Dr. R. H. Sherrill, of Idabel, Okla., has located at Waldo; Dr. H. W. Brewer has located at Wesson; Dr. Chas. W. Hall has located at Booneville.

At a meeting of the American Medical Association in San Francisco last month it was decided to hold the 1916 session in Detroit.

At its recent meeting in Fort Worth, the Texas State Medical Association elected as its president, Dr. G. H. Moody, of San Antonio. He is superintendent of the sanitarium at San Antonio, which bears his name.

At the last meeting of the Pulaski County Medical Society, we were favored with an address on Pellagra by Dr. Joseph Goldberger, of the United States Public Health Service, who gave some impressions of the nature of the malady drawn from recent research work and investigations at public institutions in Arkansas and elsewhere in the South. A general discussion was indulged in by members present.

RESOLUTIONS OF RESPECT TO DR. W. S. STEWART.

To the President and Members of the State Medical Board of the Arkansas Medical Society:

Your Committee on Memorial to Dr. W. S. Stewart reports as follows:

The State Medical Board of the Arkansas Medical Society, ever mindful of its important mission to promote, subserve and safeguard the best interests of the medical profession and the body politic in decisions as to the qualifications of applicants to practice medicine in Arkansas, has, step by step, raised its standard until the acquisition of a license to practice medicine in Arkansas is a written evidence of honor, merit and efficiency, respected alike in this and other States of the Union.

Into the higher ideals and achievements of this board Dr. W. S. Stewart, as member and as its secretary, entered enthusiastically, devoting his time and attention assiduously, and, with an intuitive grasp of the manifold duties of his office; by his urbanity, his thoroughness, his justice and impartiality, aided and assisted markedly in its accomplishments. His untimely death, being cut off in the prime of manhood, at the height of his usefulness to the profession, to the community in which he lived and labored, and, last, but not least, to the board, makes an aching void which will be difficult to fill.

Personally, each member loses a friend and co-worker, whose memory will ever be cherished.

To his grief-stricken family, our sympathy is extended in fullest measure. It is our fervent wish that an Omniscient Providence may give them fortitude to bear their great bereavement.

Respectfully submitted,

DR. M. FINK, *Chairman*,

DR. J. C. WALLIS,

DR. F. T. ISBELL,

Committee.

RESOLUTIONS OF RESPECT AND SYMPATHY PASSED BY GREENE COUNTY MEDICAL SOCIETY.

Whereas, Our beloved brother, Dr. W. S. Stewart, of Pine Bluff, secretary of our State Board of Medical Examiners, has been summoned to answer his last call. We realize that his family has suffered an irreparable loss;

that his fellow members of the State Board of Medical Examiners have lost a valuable co-worker; that the Arkansas Medical Society has lost a zealous member; and the people of the State of Arkansas have lost an honest, clean, efficient public servant; therefore be it

Resolved, By the Greene County Medical Society, at its regular session, June 2, 1915, that as a token of the love and esteem in which we held our deceased brother, a copy of these resolutions be sent to his family; a copy to the State Board of Medical Examiners; a copy to the Journal of the Arkansas Medical Society, and a copy spread on the minutes of the Greene County Medical Society.

THAD COTHRAN,
Chairman of Committee.

STATE BOARD OF EXAMINERS ELECT.

At a meeting of the State Medical Board of the Arkansas Medical Society on June 15, Dr. J. C. Wallis, of Arkadelphia, was re-elected president; Dr. T. J. Stout, of Brinkley, secretary, and Dr. E. F. Ellis, of Fayetteville, treasurer of the board. Dr. O. D. Ward, of England, was appointed member of the board to fill the vacancy caused by the death of Dr. W. S. Stewart, of Pine Bluff. The different branches were assigned to the board members as follows: Bacteriology and pathology, Dr. Stout; materia medica and therapeutics, Dr. Isbell; theory and practice of medicine, Dr. Wallis; surgery, Dr. Ellis; chemistry, Dr. W. F. Smith; hygiene and physiology, Dr. Ward, and anatomy and obstetrics, Dr. Bogart.

CLINICAL CONGRESS OF SURGEONS.

The Clinical Congress of Surgeons of North America, through its secretary, Dr. Franklin H. Martin, is sending out the preliminary program for the sixth annual session of the Clinical Congress of Surgeons, to be held in Boston, October 25 to 29, 1915, and wish particularly to call attention to the fact that attendance at this session will be limited in number, following the precedent established at the London meeting, in 1914.

The committee in charge has carefully estimated the capacity for the entertainment of visitors at each of the institutions co-oper-

ating in the clinical program, and members may be assured that there will be a place for each one who receives a membership card. It is necessary, therefore, that all members who wish to attend shall register in advance, and they are urged to send in their registration at once, for when the required number of registrations has been received no more cards will be issued. It is expected that the replies to the first announcement, together with the applications already received will fill the list, so members may not expect to receive a second notice.

The Boston session will be conducted along the same lines as previous meetings. There will be operative clinics and demonstrations each morning and afternoon in the hospitals and medical schools; every phase of surgery will be represented. The published schedule is merely an outline of the real program that is to be posted daily at headquarters during the congress. Boston surgeons are keenly interested to make a complete showing of their clinical facilities. On four evenings of the week, there are to be meetings at which papers dealing with surgical subjects of present day importance will be read and discussed by eminent visiting and local surgeons.

Members should fill out and return to Dr. Martin at once the card sent them, with the fee, whereupon a membership card will be issued to them.—Lancet Clinic.

THE QUESTION OF BAKING POWDERS.

For a number of years there has been much discussion with regard to the effects of baking powders on the health. While minor objections have been urged against all baking powders, the principal charge of unwholesomeness has been made against baking powder containing alum. This objection is based primarily on the injurious effects of large quantities of aluminum salts. To this objection the answer has been made that the process of decomposition which liberates the leavening gas when alum baking powder is used, produces an oxid of aluminum which is insoluble, and hence not injurious. For the facts in this matter to be fully understood, it must be remembered that the so-called alum now used in baking powder is not the alum used in medicine, being a sodium alum (sodium aluminum sulphate) instead of the offi-

cial potassium salt. This point is held by some to be important in view of the effects of potassium salts on the system. Cream of tartar is a potassium salt, being potassium acid tartrate.

In the discussion of the baking powder question, it must be remembered that the practical application of the facts concerns only small amounts of these salts and contemplates an occasional and not a constant use. Few people habitually consume breads made from baking powder, hence the amount of potassium introduced into the system by baking powder is unlikely to be of serious moment as regards health. Potassium salts are frequently taken as constituents of vegetable food, and yet there is no evidence that they disturb metabolism in any way. The question whether alum used in this way is injurious has been settled by the investigations of the Referee Board of Scientific Experts appointed by President Roosevelt, and its decision may be considered as coming from the court of highest authority. The investigation of this board covered a period of several years and was the most extensive single investigation ever conducted as to the healthfulness of alum baking powders.

The board made the following findings:

“Aluminum compounds when used in the form of baking powders in foods have not been found to affect injuriously the nutritive value of such foods.

“Aluminum compounds when added to foods in the form of baking powder, in small quantities, have not been found to contribute any poisonous or other deleterious effect which may render the said food injurious to health. The same holds true for the amount of aluminum which may be included in the ordinary consumption of aluminum baking powders furnishing up to 150 mg. (2.31 grains) of aluminum daily.

“Aluminum compounds when added to foods in the form of baking powders, in large quantities up to 200 mg. (3.09 grains) or more per day, may provoke mild catharsis.

“Very large quantities of aluminum taken with foods in the form of baking powders usually provoke catharsis. This action of aluminum baking powders is due to the sodium sulphate which results from the reaction.

“The aluminum itself has not been found to exert any deleterious action injurious to health, beyond the production of occasional

colic when very large amounts have been ingested.

"When aluminum compounds are mixed or packed with a food the quality of strength of said food has not been found to be thereby reduced, lowered or injuriously affected."

In short, the board concludes that alum baking powders are no more harmful than any any other baking powders, but that it is wise to be moderate in the use of foods that are leavened with baking powder.

The criticism with reference to the action of baking powders indicate a tendency to magnify quite incidental matters whenever they seem to favor the interest of one or other manufacturer. Thus the tartrate was at one time highly regarded because it was a product which was destroyed in the system, leaving a natural constituent of the body, that is, potassium carbonate. More recently it has been discovered that the tartrates are only partially metabolized in the system, removing the supposed advantage of the tartrate powders. While the objections to alum are unjustified, the physician will do well to inquire carefully into the probability of any alleged injury occurring from other forms of baking powder.—Northwest Medicine.

County Societies.

INDEPENDENCE COUNTY MEDICAL SOCIETY.

(Reported by S. A. Drennen, Sec'y.)

The Independence County Medical Society met in regular session June 7 at Batesville. Present: T. N. Rodman, of Newark; J. Hayden, P. Jeffrey, Bethesda; J. B. Ivy, W. S. Baldwin, Guion; G. S. Saylor, Floral; W. J. Long, Sulphur Rock; L. T. Evans, Mt. Pleasant; V. D. McAdams, Cord; O. L. Bone, Cushman; M. S. Craig, F. A. Gray, J. W. Case, W. F. Ball, C. J. T. Johnston, J. H. Kennerly, W. B. Lawrence, R. C. Door, S. A. Drennen, Batesville. Visitors were E. A. Baxter, Melbourne; K. W. King, Jamestown; D. W. Gray, Sydney.

J. McDowell Brewer, of Mountain View, was received into the Society as a new member.

Papers were read by the following members: G. S. Saylor, "Acute Gastric Indigestion;" J. H. Kennerly, "Puerperal Eclampsia;" P. Jeffrey, "Pleuritic Effusion;" S. A.

Drennen, "The Tonsils; Their Relation to Disease Elsewhere;" J. W. Case reported a clinical case.

After a very thorough discussion of the above papers the following members were appointed to furnish the program for the meeting in August: W. J. Long, J. B. Ivy, L. T. Evans, W. F. Ball, F. A. Gray, W. S. Baldwin.

Book Reviews.

ESSENTIALS OF MEDICAL ELECTRICITY FOR MEDICAL STUDENTS AND NURSES.—By George K. Abbott, M. D., Professor of Clinical Medicine, College of Medical Evangelists, Loma Linda, Cal. 12 mo. of 132 pages, with 87 illustrations. W. B. Saunders Company, Philadelphia, 1915. Cloth, \$1.25.

This book particularly serves the purpose to simplify the first instructions in medical electricity. Following each chapter a short list of review questions are given.

THE CANCER PROBLEM.—By William Seaman Bainbridge, A. M., Sc. S., M. D.; Professor of Surgery, New York Polyclinic Medical School and Hospital; Surgeon and Secretary of Committee of Scientific Research, New York Skin and Cancer Hospital; Consulting Surgeon, Manhattan Hospital, Ward's Island; Honorary President, First International Congress for the Study of Tumors and Cancers, Heidelberg, 1906. Published by The MacMillan Company, New York, 1914. Price, \$4.00.

This volume meets the demand for a book of ready reference, giving in succinct and available form, a summary of knowledge concerning the subject of cancer. The author refers to every practical phase of the subject. He gives a bibliography of some of the most important contributions of others. The fourteen sections are divided as follows: History, General Distribution, Statistical Considerations, Etiology, Theories, Predisposing Causes, Histopathology, Cancer Research, A Resume of the World's Work; Clinical Course, Diagnosis, Possible Errors in Diagnosis; Prophylaxis, The Investigation of "Cancer Cures," Non-Surgical Treatment; Irremovable Cancers, Institutions for the Care of Cancer Patients, and The Campaign of Education.

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THE IMPORTANCE OF LEGITIMATE SCIENTIFIC SEXUAL UNION IN DEVELOPMENT OF CHARACTER AND PRODUCTION OF CONTENTMENT AND HAPPINESS.*

BY COWLEY S. PETTUS, M.D.,

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It shall be my intention to discuss this subject truly scientifically. We hear very little on this subject in public because of its delicacy. The senior class of the Medical Department of the University of Arkansas prevailed upon me to give a lecture on sexual union, which I did. In discussing the matter with them its importance as a factor in giving contentment and happiness appeared so impressive that I decided to present it to the profession when an opportunity presented itself. I have never known the subject to be treated altogether as I propose to treat it. That it has not been more extensively discussed in public, I presume is because of the fear that some present would mistake its purport or that the discussion would be dragged into the sphere of vulgarity. Before I proceed further I will request that any who may consider the paper worthy of discussion eliminate vulgarity.

That the subject is one of gravity of unbounded consequence is evidenced by our existence. Only for its practice would our ancestors have existed, or would we exist today. As its normal practice is between the male and female, for that reason I would not properly discuss the subject unless I somewhat analyzed the sexes. The female is as different from man in her ideas, ideals, tempera-

ments, mode of life, devotions, and willingness to sacrifice, as is her anatomy. A well-bred and reared gentleman who has enjoyed the exquisite privileges of the association of a lovable mother and devoted wife looks upon woman with reverence. His association with virtuous and worthy women gives him the broad view in which, for the sake of his mother, his wife, and other noble women, because it is their sex, he has a peculiar sympathy and tolerance for women of questionable character and throws the mantle of charity over their shortcomings, unwilling to judge unless convinced. Naturally women are unforgiving toward their sex when fallen. However, as a rule only the unmarried, innocent woman who censures is sincere in her condemnation. My observations have proven the women of questionable character and those who are married and have been deprived of the real pleasure of sexual intercourse, are the ones most bitter in their denunciations of sexual misconduct among their sex. A woman who really enjoys sexual intercourse with her husband realizes the temptation to indulge and has more of sympathy for the fallen woman's weakness than of arrogant censure. Thankful for her own strength to resist temptation, unconsciously her soul reveals to her the natural protection which is given her through the love of her husband. The average woman has no brutality in her nature. Hers is that of estheticism, refinement, and elegance—characteristics giving her dominion over man. As her sphere is love, she it is that teaches man the greatest lesson—love. She can take the most worthless bum and develop him into the leading man of his community. She gives comfort in sickness and with her tender hand presses upon the forehead the liniment of sympathy, bending over his sick bed, breathes into his nostrils the balm and aroma of purity, which, like the fountain of youth, reju-

* Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

venates and gives life. She strews the pathway of life with roses and when death comes, sitting by his bed with words of encouragement and love, wafts his soul into eternity with such comfort he dies with a smile upon his lips. Such is not overdrawn sentiment of woman—it is her nature. If we do not see it so distinctly, in most instances it is the fault of man. But to say all women are entitled to this eulogy would be to rescind the words of praise.

The destiny of man ordinarily is in the hands of woman. She either leads him to the mountain peak of blissful happiness or or down the primrose pathway to destruction. But there are women brutal in character, very few are naturally so. Most of them who are brutal have been driven there by man. "Rarely indeed does a woman go astray that the husband, father, or whoever her natural or lawful protector may be, is not directly to blame for it;" whenever she is transformed from an angel to a demon, like the sleeping panther, when awakened, she tries to devour everything in sight. Man is grosser. His brutality asserts itself at an early age. His first thoughts, after reaching that point in life when reason first asserts itself, are on the lines of sexual intercourse. You may use every method to eliminate the desire, using every precaution to protect the development of sexual desire, if he is a normal boy, you may as well try to stop the sun from shining as to try to control his sexual feelings, desires, and inclinations. His conduct, of course, can be somewhat controlled, and many times satisfactorily, but attempts to suppress his natural instinct, etc., for the female at the period of this beginning of his sexual desires, I do not doubt is responsible for many sexual perverts. The sensibilities of man are such that it is not serious with him to fall. Illicit intercourse predominated with men long before David. In this particular he is not always amenable to shame on account of it. The brutal nature of man entices him to it. Its practice is not so demoralizing to man as to woman for the reason that he does not consider it so great a crime for himself, but when woman commits one sexual sin she may put hope behind her and her feet taking hold on hell she sinks lower and lower until she becomes a shameless associate of bunners and bawds. "No matter how fair the mountain upon which she has leave to

feed, she will batter on the moor." There is nothing which develops all that is good in woman more perfectly than legitimate sexual union where performed correctly. There is nothing which makes life more intolerable to woman than a mere makeshift at sexual union. "A woman fitly mated grows doubly good." No man who is informed upon the subject can deny this statement, which bespeaks its importance. Most of the dissatisfied women in every community are wives of men who do not know how to properly copulate. You may read all the poems of love that are written, revel over their splendor, go into ecstasy over their sentiment and imagine ideal love, but no such love exists without the stimulating effect of sexual passion, nor will it continue after marriage without sexual pleasure, which necessitates a knowledge on the part of man. Without this natural pleasure, their life is not what is intended it should be. The woman during courtship may delight in the love of her amoret, rave over his beautiful eyes, his flowing locks and delightful manners, but after she has married him unless he is able to perform the sexual act satisfactorily these attractions fade into insignificance and finally she grows to dislike him. Instinct tells her she craves what she gets not. The advantage man has over woman in sexual union not properly performed is that it has no bad effect on him, as the climax with him is the ejaculation and he is as well satisfied if it occurs immediately after entering or some time after entering.

If the married men of this country were told that the disposition of their wives were largely influenced by sexual union and that the inability on their part to perform this act was responsible for the discontentment, irritability, and dissatisfaction with life with their wives, they would rise up in their might and deny it. I am of the opinion that such dissatisfaction is responsible for a large percentage of militant women, those of the disgruntled type especially, who justly clamor for women's rights because they are not getting what nature intends for them and what they are entitled to receive. Many men who are unable to perform copulation correctly are known as rounders. The title on its face disputes their inability. It is a sad fact that such men are the main support of the bawdy houses who are enticed there by the artful woman who knows how to play with the

vanity of man. They are of the opinion that their knowledge of sexual union is perfect and look with a degree of no slight contempt upon the wife because of her ignorance along these lines. It is pathetic. The poor noble woman, abused, forced to share her place with the woman of the underworld, subjected to disease, her womanly pride trodden upon, and all because of the ignorance of the pseudo wise husband of correct legitimate sexual intercourse. If the frequenters of the "red light" district among married men would only learn that each night they were privileged to sleep with a woman who could give an honorable clean man more pleasure in one sexual intercourse than it was ever possible for all women of the underworld to give, and that they would receive just that satisfaction God intended, and that they would also fulfill a duty which would cause more pleasure to the wife than any other act that duty demands of husband. We have all heard women say: "Doctor, I have six children, but with all that I have never known the pleasure of an intercourse with my husband, there is something lacking in my nature." How rueful, she, the embodiment of greatness, noble if possible to a fault, on account of the ignorance of her husband, does not have that pleasure. It may be this statement is brought out in an examination which later reveals gonorrhœa, contracted from her faithless husband. Then not only through his ignorance of sexual intercourse is she deprived of pleasure but is made an invalid and a constant sufferer as well. To the face of justice can there be a sadder picture!

The classification of sexual passion with women was once aptly expressed by an old physician with whom I had the pleasure of several days' association. We were discussing a case in which a married man left his wife and children, eloping with a beautiful young woman. To my surprise he expressed sympathy for the man. He then classified women with respect to sexual passion: The woman who has no passion, the woman who has passion for any man with whom she comes in contact, and the woman who has passion but for the man she loves. He knew the outraged wife, having delivered her when her mother gave birth to her, and placed her in the class of women without passion. This man was divorced from his wife, married his paramour and is living with her, both of

them happy and contented. It is rarely the case we find a woman truly devoid of passion. This case may be conclusive as the man evidenced that it was not his fault, demonstrating his ability to please the woman who sacrificed all for him, and they are as happy to-day as on the first day of love's manifestation. The world may censure and condemn—they do not care, because they have reached the zenith in their contentment and happiness. Men will say to us, "My wife is not the least passionate." Generally these men have been married for many years but are impressed with the delusion of the lack of passion in the wife, are extremely sensitive about their wonderful manhood and think they know all about sexual union because of their constant readiness and ability to ejaculate on all occasions. Because of this wrong impression there may be but few in this State that much can be done for in the way of advising. However, our duty is plainly seen and should be performed. The time for advising how to copulate is before marriage or during the honeymoon, when woman can be aroused to speak as Venus spoke.

"Torches are made to light, jewels to wear,
Dainties to taste, fresh beauty for use,
Herbs for their smell, and sappy plants to bear;
Things growing unto themselves are growth's
abuse,
Seeds spring from seeds and beauty breedeth beauty,
Thou wast begat; to get is thy duty."

If man is properly advised he will then be able to satisfy his wife and give and receive the most sacred contentment and happiness, protected from the beckoning hand of temptation which leads down to debauchery, disease, and death. I consider the classification, viz: no passion, abundance of passion for all men, and passion stimulated only by love as fairly accurate. Most women would be classified with the latter—passion stimulated only by love. Yet circumstances and environment can influence a deviation in this class as in the class of women who have superabundance of passion. For instance, such a woman may become so completely enamored with an individual male that through her love she is able to control her feelings. Such a woman belongs to the greatest and noblest of her sex. Then she who has passion for but the one she loves may become dissatisfied with her husband. His inability to perform the sexual act, his dissipations and other things may

drive him from her. While in such a state the coming in contact and associating with a congenial male friend stimulates a love and while it may not in the eyes of the public appear a legitimate love, it produces happiness. There are men who are unaware that women should have passion and when apprised of the fact are *astounded*. I have many times heard men contend that women are not supposed to have passion, that the vagina has the function only to accommodate the penis entirely for the pleasure of man and as an outlet for the fetus after its development. Such men are the innocent kind. Their ignorance suggests virtue. They of all men should know something of the subject. None are more entitled to contentment in life than they and their wives. They may be the essence of honor, virtue, and innocence; because of their ignorance, they become responsible for the unhappiness of their wives and sometimes for the downfall of a good woman who is caused to feel like Venus felt when she said to Adonis:

“Art thou obdurate, flinty, hard as steel,
Nay, more than flint, for stone at rain relenteth?
Art thou a woman’s son and canst not feel,
What it is to love? how want of love tormenteth?
O, had thy mother borne so hard a mind
She had not brought forth thee, but died unkind.”

It matters not how good a woman may be, to be merely aroused to the point of sexual desire and there like the lost wanderer left in the forest to starve, she becomes desperate. A woman can better retain her virtue unmarried than she who marries a man who only arouses passion and is unable to satisfy it. She is placed in the attitude of desiring, subjected to temptation, and it takes determination, will-power, and real religion her encountering temptation unaffected.

The importance of eradicating disease we know, which enables us to correctly appreciate the progress of hygiene, likewise the importance of knowing pathology without which knowledge a scientific diagnosis cannot be made, and a knowledge of anatomy to do surgery. Think of the aid to humanity through our knowledge of hygiene, pathology, and anatomy, but they are not more important than this subject in which so many times if we could, or would, properly advise we would restore health, give that contentment and happiness so desirous, withdraw temptation and thus lessen the dangers of venereal infections

and the most virulent debauchery. If we could properly investigate the followers of Christian Science we would find that fully 90 per cent of its devotees are men and women mere nervous wrecks, suffering as such as a consequence of ignorance along sexual lines. Until we take the question into our own hands, educate the public how it should be done, they offer as much or more comfort to the sufferer than we do. The average man who knows how to perform sexual intercourse would not believe there are those so grossly ignorant as I have suggested, but if he knew the truth as the doctor he could but wonder and deep down in his heart condemn our profession. Education as to the proper way to perform sexual intercourse would be one of the greatest single factors in eliminating venereal diseases, debauchery, and the “red light” district, and would bring more real contentment and make more happy homes, and help more good women to retain their virtue and station in life.

Can we deny its importance? Then what excuse can we offer for our dereliction in not giving correct information of proper method to the public? The delicacy of the subject cannot, nor our lack of knowledge should be excuses. The importance of the matter is so apparent we cannot deny it. I consider our indifference and thoughtlessness alone responsible for our lack of interest in educating the public in what they should know about sexual intercourse. “There is hardly a wrong, hardly a sin, hardly a sorrow in all the world which may not be traced to social ignorance, social prejudice, or social indifference.” As to the unfortunate outcome of wrongs from sexual union, I exonerate social ignorance, social prejudice, and social indifference and place the blame on the shoulders of our professional indifference. I charge it to the inertia of our profession, which is responsible for the existence of this cause of happiness destroyed, lives wrecked, suffering and diseased bodies, and souls sent to hell. Our profession and science above all others emphatically answers in the affirmative the scriptural question asked by Cain, “Am I my brother’s keeper?” The backwardness of doctors in giving advice on many subjects is responsible for much and great suffering. I am one of those who believe it my duty to advise my patients on all lines pertaining to my profession. If I see an excrescent growth, un-

solicitedly advise its removal; if on examining urine for life insurance I find evidences of Bright's Disease, I advise the applicant to go to his family physician for treatment, explaining why; and when I hear of one of my male patients or friends arranging to marry I give him advice along the line of sexual union. Thus I try to square my practice with my principles. I commit my teaching of correct sexual union and its importance no small part of the little good it is my privilege to do.

On motion of Dr. Cargile, seconded by Dr. Douglass, the appreciation of the session was extended to Dr. Pettus for his excellent paper, and he was requested to present another paper next year on the same subject.

ECTOPIC GESTATION.*

BY WILLIAM A. SNODGRASS, M.D.,
Little Rock.

(A Supplementary Report of Cases of Ectopic Gestation Reported to the Society in 1909 and 1912.)

At the meeting of this State Society in 1912, I had operated on fourteen cases of ectopic pregnancy, and made one post-mortem on a young woman, who had died from an internal hemorrhage following the rupture of the fallopian tube. Since January, 1912, I have operated on eighteen additional cases, making a total of thirty-three cases. Seven of these cases were colored women; thirteen of these cases occurred in women who had never been pregnant. One case was the eleventh pregnancy; one the tenth; one the seventh.

Of the thirty-three patients, I have knowledge that seven have borne normal, healthy children since the operation for ectopic pregnancy. One patient has had three children; two have had two children; four have borne one normal child since the operation. Five of the last eighteen cases have been diagnosed and operated before rupture. Seven had ruptured, six were found at the operation, when a diagnosis was made for tubal or ovarian disease, a positive diagnosis not being made until the abdomen was opened. One died of primary shock; one from septic infection; sixteen made a complete recovery.

A complete mistake in the diagnosis was made in a girl seventeen years old. She had a salpingitis in the right tube with effusion.

* Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

She was also pregnant; not extranterine, but normal. I opened the abdomen and took out the tube. Six and one-half months later, she gave birth to a normal healthy child at full term. The patient is again pregnant and is progressing favorably.

I have changed my views but little regarding the diagnosis and treatment of these conditions. I trust the members of this Society will allow me to repeat some of the points in a former paper read in your hearing in 1912:

Ectopic gestation or extrauterine pregnancy consists in the development of the fertilized ovum outside the uterine cavity.

Varieties: Ovarian; peritoneal cavity; surface of the broad ligament and the fallopian tube. A great majority of cases occur in the portion, unusually, about the junction of the middle and outer third of the tube. This variety is known as ampular gestation, and to all practical purposes, ectopic gestation means ampular gestation. Development in the tube near the ovary or near the cornua of the uterus is very infrequent.

A great many theories have been advanced as to why extrauterine pregnancy occurs; namely, malformation of the fallopian tubes, either congenital, from inflammatory conditions, or pressure from displaced abdominal organs; destruction of the ciliated epithelial lining of the tube following mild attack of salpingitis, cases in which the inflammation does not cause complete occlusion of the tube. By considering this phenomena from the standpoint of pathological anatomy, we can readily see how an ovule might become lodged, fertilized, and attached to tissues other than endometrium, and grow.

The size of an ovule before fertilization is $1/125$ of an inch, the lumen of the tube is $1/50$ of an inch, and the body of a spermatozoa is $1/650$ of an inch. If these measurements be approximately correct, it would be quite an easy matter for the lumen of the tube to become partially occluded and obstruct the onward passage of the ovum to the uterus, the spermatozoa possessing motility could pass up a constricted tube and meet the ovum at the point of lodgment, and when these two elements come in contact with each other fertilization takes place. The fertilized ovum begins to grow rapidly, and the chorionic cells soon become attached to the tissues lining the fallopian tubes, peritoneum, or the surface of the ovary. If attachment is imperfect or by

any means it becomes detached the fertilized ovum dies. If this occurs very early in its development it may be absorbed. If the development is further advanced, it forms a mole or may suppurate and cause an abscess, destroying surrounding tissues. If the attachment is perfect enough to afford sufficient nourishment, the embryo develops at about the normal rate. If the attachment is to the peritoneum or ovarian surface the placental growth and the development of the fetus takes place without any marked disturbance to the mother, and a viable child might be removed by opening the abdomen at the full term of gestation. Ovarian and peritoneal gestation are very infrequent. Tubal gestation is quite common; when we speak of ectopic gestation we really mean tubal pregnancy.

I may be unfortunate, but I have never found a single case in all my operative work where the fetus would have matured and could have been removed by abdominal section a viable child. I have not found any cases where the placental attachment was extratubal. If I should find a case, I do not believe I would be justified in subjecting the mother to the danger of trying to carry the child to term and then removing it by abdominal section. I believe when the diagnosis of this condition is made, our first duty is to the mother, as the probability of saving the child is so small under the best conditions, I would insist on an immediate operation to remove the products of gestation.

Symptoms: The symptoms of this condition are not constant. The usual symptoms of pregnancy are not present in all cases of normal pregnancy. Textbooks tell us that it is very hard to make positive diagnosis of pregnancy before the third month. As the tubal variety ruptures between the fifth and tenth week, the diagnosis before rupture is extremely difficult. Delayed menstruation for from five to fifteen days followed by the passage of mucus and stringy material instead of the flow of normal bloody discharge, is a usual sign. There may be some cramping simulating an early abortion, which condition may continue for several days. There may be a complete membranous cast of the uterine cavity thrown off in one mass. One symptom that I have always found present, and the one on which I base my diagnosis before the rupture of the tube, is a throbbing pain in the region of the tube involved, upon the slightest jar or

concussion of the body, such as the moving of a street car or other vehicles. Bimanual examination may reveal a thickened tube sensitive to pressure. The throbbing pain in the affected side may be temporarily relieved by making firm pressure with the palms of both hands on the lower abdomen. The cervix is soft and presents the same general condition as are found in normal pregnancy. Absence of fever cannot always be relied upon. These patients occasionally have an elevation of temperature; in tubal pregnancy the pain is always out of proportion to other symptoms. I have seen those patients so sensitive to vibrations that they would complain of intense pain when members of the family would walk across the floor. The pain is of that peculiar throbbing nature which characterizes the pain produced by tension.

When rupture takes place the diagnosis is easy. The history just given, the acute abdominal pain, all the clinical symptoms of shock; weak, rapid pulse; pallor; dilated pupils; great prostration; increased abdominal tension; rigidity of the abdominal muscles, and the characteristic doughy feeling elicited by palpating the abdominal walls. This is one class of cases in which it is never advisable to wait for shock to subside or to give heart stimulants. A hypodermic injection of morphine is the best medicine, as it assists in allaying nervous excitement until the patient can be prepared for an immediate operation. When the vessels are ruptured they bleed continually until there is sufficient lowering of the blood pressure for the small vessels to contract. Stimulants increase the amount of hemorrhage. It is a grave problem to pull an exhausted patient back to life. Save every drop of blood possible and lose no time in getting a clamp on the ruptured tube. The technique of the operation is exceedingly simple, and if quickly done the mortality can be greatly reduced.

THE OPERATION.

Instruments: Very few instruments are necessary. Preparation of patient, shave hair off pubes quickly, preferably dry. Paint thoroughly over a large area with 5 per cent tincture of iodine. Cover patient's body and extremities well to prevent draughts of cold air. Cover towels wrung from bichloride solution, will do to protect and antisepticize the abdomen, if you have no operating

room dressings available. By this time the anesthetist should have the patient to the point of surgical anesthesia. When the patient has lost much blood it does not require a great deal of anesthetic. Keep the patient's head lowered, make a rapid stroke three inches long through the skin and fascia in the median line, half inch above the pubes arch. When the peritoneum is seen, it will show the wine-colored fluid beneath it. Take up the peritoneum with small thumb forceps, open it rapidly, introduce your fingers above and behind the uterus and bring it up, so the tubes can be easily inspected; place clamp on the bleeding tube. Note the condition of the patient. If favorable, complete the operation in the usual way, by removing the tube and clots by swabbing out the abdomen with wet hot pads. If the patient's condition is unfavorable, place a hot towel over the wound and hold intestines back, have an assistant start a hypodermoclysis of normal salt solution, and have a second assistant prepare normal saline solution for rapid proctoclysis. The tube and clots should be removed from the abdomen before the saline is introduced into the rectum on account of the distention of the bowels from the solution, which will interfere with the closure of the abdomen. The abdomen should be cleansed of all clots, especially up under the diaphragm. After the tube is securely tied with No. 2 plain catgut, the fetal remains found and removed, close the abdomen, place the patient in a dry warm bed and have an assistant put at least a quart of hot water into the bowel per rectum rapidly and hold the rectum closed with a towel by grasping the sphincter muscle until the water is absorbed. As soon as the patient awakes from the anesthetic, water per mouth should be given, unless there is vomiting or some other contraindication. In my experience the bloodless patients never vomit. Keep the patient's head much lower than the trunk and extremities for several hours until reaction is well established.

Small doses of morphine, $\frac{1}{8}$ grain every three or four hours for twenty-four hours, is the best medicine for shocks of this kind. As soon as possible give the patient nutritious broth and light food easily assimilated.

In these cases do not wait for developments or for shock to subside. Operate quickly and save all the strength the patient has. The dangers of sepsis can always be avoided by

proper asepsis, which can be applied in the dirtiest hovel, if you try.

I do not know whether this condition is becoming more frequent or whether we are making better diagnosis. Very few people die nowadays, without having a fairly accurate diagnosis of their condition made before death. If we were permitted to make post-mortem examinations in this country as they do in some of the European countries, we would improve in our diagnoses.

I wish to implore you to be more careful in all examinations of patients in whom there is a possibility of an extrauterine pregnancy being present.

HYDROTHERAPY.*

BY C. TRAVIS DRENNEN, M.D.,
Hot Springs.

Hydrotherapy means nothing more nor less than the systemic use of water, as a curative agent. Since the days of Hippocrates and Galen, water has been used as a curative agent for all diseases. In order that we may comprehend the value of this agent, it becomes necessary to call your attention briefly to some of its physiological effects when applied either internally or externally. I will direct your attention, first, to some of the influences—only a few—which it exerts when taken internally.

I found many years ago that drinking three pints of cold water, at a temperature of forty-five degrees, within a period of thirty minutes, had the effect upon me to lower the pulse rate from 80 to 50 beats per minute. Now, the same quantity of warm water, taken after the same fashion, had increased it to as high as 97 beats per minute. This I point out, to show the very powerful influence which this agent has in regulating heart action. The taking of water internally, is not only useful as a solvent and eliminant during the process of life and death, but maintains that degree of tension within the tissues which is absolutely essential for the circulation of the lymph stream—so, the effect of cold water not only lessens the frequency of the pulse rate, but improves its arterial tone; while warm water, on the other hand, produces relaxation

* Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

and increased pulse rate. Undoubtedly this influence is brought about through the vasomotor nervous system.

I question today if there is a single drug within the whole pharmacopœia which is a safer and quicker diuretic than hot water. Should anyone question this statement, I would suggest: irrigate first the colon, with large quantities of hot water, and when same has been fully ejected, again inject with about one pint of hot water, more or less, at a temperature of 110 or 120 degrees Fahrenheit, and observe the result. Absorption takes place within about thirty minutes, after which urination is freely induced. Irrigation provokes, when administered in this manner, diuresis in two ways—by the stimulating effect of heat on the circulation, kidneys, and by direct absorption. In all cases of toxemia, it would appear that this agent should never be forgotten and that it has been found universal in its beneficial effects.

These are only a few hints, but sufficiently suggestive to warrant us in making the statement that water becomes a most valuable agent, in the treatment of almost every disease of which the human mind can possibly conceive. We should therefore not lose sight of the fact, that practically all chronic ailments would be benefited by its use, either through the drinking or other application of this remedy.

I will next direct your attention to a few of the physiological effects of this agent when applied locally. Every physiologist knows, first, that the skin is a heat regulator and it has capacity for giving off secretions and gases, and its very delicate nerve supply renders it a most excellent gateway to the central nervous system. Now, when we recall its elasticity, with its power for aiding in that general something which we call the circulation of the blood, and again remember that it is endowed with the power of taking care of about one-third of the entire blood supply under certain conditions, it is quite easy to perceive what a very powerful influence may be brought to bear upon the circulatory and central nervous systems through any irritation of this organ. Those of us who happen to believe in the skin-heart theory cannot fail to appreciate what a wonderful weapon we possess, in both hot and cold water, when applied by friction to this organ.

It has been conclusively proven that the rise of temperature in fevers is the direct result of contraction of the peripheral vessels. *It should never be forgotten that when water is used at a temperature of 93 or 95 degrees that its physiological effects might well be considered nil, inasmuch as it has no appreciable effect upon blood pressure. It would therefore appear that when persons are advised to adopt an hydrotherapeutic course, this point should never be forgotten, especially so, when we recall that each degree, either above or below this point, is to be reckoned with as producing a different effect, and knowing that the constitution of each and every person is different, both in health and disease, it becomes all the more necessary that this agent should be handled by one who has been trained or schooled in the art of its application.*

An accident which has happened to a number of persons who have come under my observation, suffering from certain ailments, who have taken internally a superabundance of water, is to develop what might be called hydroplethora, resulting in cerebral hemorrhage and thereby producing partial paralysis or death. I have observed death in more than one instance occurring as a result of over stimulation of the peripheral nerves, from the use of hot baths during the past, in the city of Hot Springs. Therefore, how important it must be to every conscientious physician who sees fit to give his patient the real benefits which are to accrue from a spa treatment, to see to it that his patient be always placed in the hands of one who has had observation and experience as an hydrologist. To do otherwise would be almost criminal and the breaking of an Hippocratic oath.

Accepting the above statement and considering these facts, it would be just as well to advise any person seeking spa treatment to go into a drug store (knowing that various drugs are both helpful and harmful, and further knowing that the patient has no knowledge of the effects of any of the drugs) and advise him to take, in his own way, any of the drugs which he may happen to find, further knowing that the patient knows absolutely nothing of the physiological effects of water, when used as a curative agent. Especially, should attention be called to the fact that the hot waters of the Hot Springs, Arkansas, are known to be numbered among the most highly radioactive waters to be found anywhere in the world.

REPORT OF THE CLINIC FOR THE DISEASES OF THE EYE, MEDICAL DEPARTMENT UNIVERSITY OF ARKANSAS, 1914-1915.*

By FRANK VINSONHALER, M.D.,

*Professor Diseases of Eye, Ear, Nose, and Throat,
Medical Department University of Arkansas.*

It occurred to me that possibly a report as here made would be of some interest to the profession as indicating the work done during the college year.

The report embraces the records of five cataract extractions, one trephine operation for glaucoma, enucleation lid operation; besides a great number of external diseases of the eye, including trachoma, phlyctenular ophthalmia, spring catarrh, and ophthalmia contagiosa. The usual number of refraction cases illustrating the different varieties of eye strain complete the list.

The cataract operations represented the very fair average as to variety. All were senile, with ages varying from 50 to 70. In one case the fellow eye had been lost by chronic iridocyclitis and in the eye operated upon there were also changes in the choroid. The light projection was good and the results of the operation were such as to justify it.

In all of the cases the operations were done by the combined method of extraction. In none of them were there any complications, except that in one of them there was a mild grade of iritis which subsided promptly under the use of atropia.

In all of the operations the DeWecker incision was made, followed by an iridectomy averaging from three to four millimeters in breadth. The capsulotomy was performed by Wilder's cystotome, the lens being expressed by pressure on the lower portion of the cornea with a spoon. After replacing the angles of the iris careful search was made for any fragments of the capsule.

In nearly every instance the dressing was the one advised by Beard and used in the Illinois Charitable Eye and Ear Infirmary, and consists of packing the angles of the orbits with pledgets of cotton saturated with sterile boric acid solution, the object being to make uniform pressure from every direction, and, in that way, secure the most perfect coaptation of

the edges of the wound. Where any dressing at all is used I have found this to be the most efficacious.

The question of using any sort of pads or dressings that hold the lids firmly against the eye and emolbolize them, is in some quarters still a matter of discussion.

Hess has been for some years an advocate of the open treatment for cataract wounds. He has in this statement some followers. More than twenty years ago the method was used in this country by Chisholm of Baltimore. After a trial of the method at that time it seemed to me an unwise procedure, and it was therefore abandoned.

After an experience of many years, I am compelled to admit that there are certain cases where it is the only procedure to follow. Every operator has seen cases where an occlusion bandage has lighted up bacterial activity in twenty-four hours; so that the conjunctival sac is filled with pus. This occurs in cases where there is no warning. My observation is that this is most likely to occur in elderly people who are anemic. I think that in all of these cases bacterial examination should be made at least twice before the operation, and the use of a trial bandage should be made to see if pus is formed by such a procedure.

In this class of cases the open air method accompanied by the use of Argyrol 25 per cent gives the best results; but the use of the open method should be restricted to these cases only.

Concerning the Major Smith operation we have had no experience. We believe that the average operator doing from twenty to fifty extractions during the year will do better work and secure better results by the old combined operation.

The opportunities requiring the dexterity required by the technic of the operation is not present with the average operator, and the old adage "Safety First" applies in this case as in others.

The opportunities for observing the Elliott operation were not very great in this clinic. The patients as a rule come from considerable distance and are not financially able to remain under observation for any length of time.

Its field of greatest usefulness would seem to be in the chronic simple glaucoma, or in the subacute form. The acute form of glau-

* Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

coma gives better results with the old iridectomy. The writer has found two objections to apply to the Elliott operation. The first and the most important is the intraocular hemorrhage. This can occur at any time, but is most likely to occur the first twelve hours after the operation. The writer has seen one case from the long ciliary artery which pushed the choroid and retina halfway across the anterior portion of the eye. Cases have been recorded where absorption of such a hemorrhage has taken place and where replacement of the choroid and retina to their normal position. The writer has never had the opportunity of observing such a result and he hardly agrees with Elliott in his statement that an intraocular hemorrhage is one of the bugbears that will continue to dog the footsteps of the ophthalmic surgeon.

The second complication is iritis. This seems in no way dependent upon any defect of the operation and is due to the rheumatic predisposition of the patient. Cases of infection after the operation I have never known.

We were confronted with two cases of sympathetic ophthalmia, the first one being a typical case. Here the exciting eye was blind from an old iridocyclitis with a shrinkage of the globe. The sympathizing eye presented evidences of the same process but in a less marked degree. There were a few old adhesions of the iris to the lens. Traces of partially absorbed exudate in the pupillary area, and only an indistinct background of the eye. An enucleation of the exciting eye was advised, but declined by the patient. The second case was also one of long-continued inflammation in which the exciting eye had been completely destroyed. The sympathizing eye was in a condition of sympathetic irritation. There was, however, no inflammatory change in the eye. Removal of the exciting eye promptly relieved the patient of the danger of real sympathetic inflammation.

We regret that no opportunity was given to try the curative effects of the 606 in the sympathetic ophthalmia. The writer had an opportunity of seeing this last summer two cases treated with 606 with very gratifying results. It was the impression of those who had these cases under observation that no remedy had so far been found that exerted such a favorable influence. It was suggested by these observers, and it would seem that the reasoning was that the exciting cause of the

sympathetic inflammation when discovered will be found to be a spirillum.

Among the ophthalmoscopic cases was a condition of advanced optic atrophy with degeneration of the pituitary body. Owing to the absence of an efficient X-ray apparatus we were unable to verify our suspicions concerning it.

The usual number of trachoma cases presented themselves for treatment. The acute cases with marked trachoma granules were subjected to the roller forceps operation under general anesthesia, followed by cleansing the lids with a solution of bichloride, and the subsequent triweekly treatment of cupric sulphate. Most of these cases terminated in recovery in from two to six months.

The usual number of lid operations. Canthotomies for the narrowing of the palpebral fissure. The McReynolds operation for pterygium. This is the most satisfactory in my experience of all the operations for this trouble, there being fewer recurrences.

This with the usual cases making up the number of external diseases of the eye ends the report of the Eye Clinic of the University of Arkansas for the years 1914 and 1915.

THE RELATION OF THE PHYSICIAN TO PUBLIC HEALTH, AND HIS OBLIGATIONS.*

By J. T. Clegg, M. D.,
Siloam Springs.

I was asked late yesterday afternoon to fill in this program the vacancy created by the absence of Dr. Williamson, so it is almost without preparation that I venture to read a paper at all on this important subject. Perhaps what few suggestions I venture to make will be entirely different from what many expect to hear. Every conscientious physician is interested in public health, and why? Because he is a citizen and is interested in humanity and public welfare, as any active citizen should be. The only difference between him and any other citizen is because he is a physician, and as a physician he knows that many, many of the ailments from which he suffers and from which his fellow-citizens suffer, are preventable; and he furthermore knows that the prevention of disease can only

*Read at the Public Health Meeting of the Thirtieth Annual Session of the Arkansas Medical Society, Little Rock, May 6, 1915.

be brought about by a full and free co-operation of all fellow-citizens.

The physician is no more interested in public health than any other citizen. To view the subject from a mercenary point of view he is not to much, because out of the ills of mankind he gets his living. Now, I am not going to boost the physician, nor boast of his altruism. The doctor is no better than the lawyer, and no worse. The doctor is no better than the preacher, and no worse. The lawyer spends his time, money and influence to correct tort and to prevent crime. The gospel man does the same to lift his fellow-man from degradation and sorrow to character and usefulness in society. The doctor is only animated by the same sentiment and he is as willing to abolish all sickness as a lawyer is to abolish all crime, or a preacher all sin. Therefore, he feels it to be his obligation to advise the ones in his care how best to keep well. He feels it his duty to advise his patient that he cannot keep well if his neighbors are sick, and that every citizen must co-operate to get the best results in keeping well. He realizes all the duties and obligations. But there is a difference between duty and business. The practicing physician is not a sanitarian. While it is his duty to aid in the advancement of public health, it is no more his duty than it is the duty of the lawyer, the preacher, the planter, the merchant, or the banker. The lawyer's business is to advise and represent the interests of his client, for which he is paid. The merchant's business is to sell his wares, for which service he makes his profit. The doctor's business is to attend to the necessities of his patients, for which he should be paid. Sanitary science has gotten entirely beyond the profession of medicine. The sanitarian should be a physician—not a practitioner, but a physician; and more, his field is too wide and too large for the discussion of it to enter into the scope of this paper.

The science of sanitation is no longer an experiment or a theory, but a reality and a fact. It has been demonstrated in the building of the Panama Canal and in the prevention of widespread epidemics among the millions now engaged in war. The sanitarian must be a civil engineer. He must be a chemist, a biologist, a bacteriologist, a physiologist, a meteorologist; for he must know the effects of rain, wind and temperature and the source of water supply of a given locality.

He must be an entomologist, for he must recognize the influence of insect life in the spread of disease.

The physician feels his responsibility in matters of public health, because he has acquired knowledge of many of these subjects incidentally to his professional education and becomes to feel that in these he is his brother's keeper; but it is very self-evident he is not prepared to advise his community in all that is required in sanitary work. The physician, however, has heretofore taken the initiative in public health work. He has done the best he could. His work has been in a way missionary. He knows well his inability to accomplish what can be accomplished. He is now ready to turn the work over for completion to those learned in the science of sanitation. The doctor may be his brother's keeper, but he realizes that his brother should also have an interest in him as well as himself.

Fellow-citizens, the effort to prevent disease and to promote the sanitary well being of the state is up to you. Will you uphold the hands of the State Board of Health and local health officers in their duties?

You, as a citizen, whatever may be your calling or position in life, are under just as many obligations to keep yourself well and your neighbor well, as is the doctor. Municipalities of all kinds, whether state or city, are as much obligated morally in employing and taking the advice of a doctor of public health when your state or city is diseased, as the head of a household is to employ a physician when the child is ill.

It is certainly time for all the people to realize that they, too, have a responsibility in the matter of preventing preventable disease.

During May the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Nonofficial Remedies:

Hoffman-LaRoche Chemical Works:

Papaverine Hydrochlorid, Roche.

Papaverine Hydrochlorid, Roche, tablets.

Papaverine Sulphate, Roche, ampules.

Hynson, Westcott & Co.:

Ouabain Ampules, H. W. & Co.

Merek & Co.:

Papaverine Hydrochlorid, Merek.

WHAT TUBERCULOSIS CASES ARE UNSUITABLE FOR SANATORIUM TREATMENT.*

BY F. P. BAKER, M.D.,
Booneville.

During the bi-ennium, 1913-1914, there were admitted to the Arkansas Tuberculosis Sanatorium 546 patients. Included in this 546 were 80 incipient cases, 242 moderately advanced, 216 far advanced, 5 glandular, and 13 were found non-tuberculous. I wish to state that among the incipient and moderately advanced cases there were no deaths; but 19 of the far advanced cases died at the sanatorium during the two years. For the benefit of those present who do not understand this classification, I will state that pulmonary or lung tuberculosis is divided into three stages by the medical men, according to the extent of lung involvement—incipient or first stage, moderately advanced or second stage, and far advanced or third stage.

Now, the object of this paper is to bring out what tuberculosis cases are unsuitable for sanatorium treatment, so that the doctors over the state will aid in selecting proper material, thereby increasing the efficiency of our institution. If the doctors of the state could understand that the function of the sanatorium is the arresting of the disease, with a possible cure afterward, we would not have had these 216 far advanced cases sent us.

Far advanced cases are unsuitable for our treatment. These cases usually have complications, such as laryngeal, intestinal, renal, or other involvements in conjunction with the pulmonary trouble. It is these far advanced cases that I wish to speak of in my short paper this evening, and I will cite two of the cases sent us by reputable physicians, who said in their medical examination papers that there was a reasonable hope of cure for the patients.

One of these cases a doctor in the north-western part of the state sent us, saying it was a good, incipient case. When the patient arrived at the sanatorium it was found that she was unable to walk, was very emaciated, running high temperature, and had a large cavity in the apex of the right lung,

with involvement of the left in its entirety. This patient stayed at the sanatorium only fourteen days, when she died. This case was absolutely unsuitable and should have been allowed to stay at home the remaining days of her life.

Another patient who came from central Arkansas was accompanied by the family physician, who had great hope for the recovery of the patient. When examined by us we found him in a very far advanced stage—both lungs extensively involved, with cavities present. Besides this, the patient was very emaciated, with a severe intestinal involvement and diarrhea. He went home and died shortly afterward.

These are two of the many cases that I could speak of, but for lack of time have given only these two as an example of the seemingly wrong impression that the medical fraternity has in regard to cases of tuberculosis that are curable. Such mistakes are nearly always due to incomplete examination of the patient by the physician, although in a few cases the patient is sent here to die, in order to rid the community or doctor of the responsibility.

By the term "far advanced" we mean a case that has advanced to the point where there is cavity formation, or a very extensive pulmonary involvement, with high temperature, night sweats, profuse expectoration, or other clinical symptoms that are found in advanced phthisis. Whenever we find cases like these we know that the sanatorium can do them no good.

Advanced laryngeal cases are very unsatisfactory, and are unsuitable. Now we find that there are, I might say, two forms of this laryngeal complication, namely, cases in which deglutition is painful, and cases in which it is nonpainful. We entertain hopes for the nonpainful form, but we are without any hope whatever for those cases who have the painful form, because they cannot take enough food, and usually starve to death.

Another very unsuitable form for sanatorium treatment is the intestinal. This is brought on in most cases by the swallowing of the infected sputum, or by infected food. All we can do in these cases at the sanatorium is to check the severe diarrhea with some preparation of opium. Such cases are better off at home, as it is only a matter of time until the end. We have watched these cases

*Read at the Public Health Meeting of the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 6, 1915.

fail, and the treatments at our command are seemingly useless.

Another form of tuberculosis that we advise to go home is the renal, as we can do them no good at the sanatorium. Perhaps surgical interference prolongs the life of the patient for some time, but we believe eventually the other kidney will become involved if the patient does not exercise the strictest care.

Cases of bone tuberculosis are very unsuitable for the sanatorium. As you know, surgical interference is indicated more or less, and a general hospital is the place for patients of this class. This form of tuberculosis is being treated very successfully by the surgeons today.

When a patient has a very rapid loss of weight and fails to respond in due time to the open air treatment, it perhaps shows a general miliary tuberculosis, which cannot be benefited at the sanatorium and should not be sent there.

Occasionally we receive a case of tubercle meningitis, which we understand is of very short duration, and we never treat such cases with hope of a cure. Death usually comes in about two weeks after the first symptoms are noticed. These cases are out of place in an institution where it was intended that only cases that show a reasonable hope for recovery are received.

We have rejected quite a number of cases of young mothers who have recently given birth to a child, as we have found from our experience that they have a very poor chance to come back after the birth. We usually postpone the entrance of these applicants from two to three months after the birth of the child, and if they show a reasonable hope for recovery at that time we accept them. But we find it is harder to get the resistance back into these patients than almost any other class, as their capacities are taxed to the limit to recover from childbirth, even when in a normal condition.

I wish to mention also that we find patients advanced in age are unsuitable cases for sanatorium treatment—not so much because of their tuberculosis involvement, but because of their set habits and their love for home. We have had quite a number of patients from forty-five years of age upward, and we have always found that they get homesick after they are at the sanatorium for two or three weeks. So we believe it is best to class this kind of patients as unsuitable for sana-

torium treatment, because it usually does the patient a great deal of harm and sets them back considerably, coming to the sanatorium and living the life for just a short time and then returning to their home.

Cases with pronounced neurasthenia or other nervous disorders we find very unsuitable for the treatment. The nervous condition existing lowers the resistance so very much that they usually keep going down and down until they are past any help that might have been given them. And, too, they are disturbing factors, inasmuch as they excite the other patients and keep them on nervous edge, which retards these also from making progress.

We find that cases with complications of syphilis or very severe malaria, or those convalescing from typhoid fever, are very unsuitable for sanatorium treatment, as their resistance is so severely taxed that they do not have enough left to combat the tuberculosis.

In conclusion, we wish to impress upon the doctors that the success of our institution depends on the classes sent, and we are striving to do good where good can be done. Therefore, we would like to eliminate the unsuitable cases which I have pointed out in this paper.

IS FATTY INFILTRATION PATHOLOGIC?

It has been known for some time that starvation of quite short duration may produce a fat infiltration of the liver in certain animals, yet brief hunger is scarcely to be classed as a morbid state. Coope and Mottram of the University of Liverpool have now observed further that, in some individuals, late pregnancy and early lactation may be accompanied by a decided increase in the fat of the liver. Even when the animals were specially dieted, this augmentation was found to occur at or about the time of parturition. Apparently the excess of fatty material is correlated with the metabolic disturbances that attend gestation. This is substantiated, whether one depends on histologic pictures or on chemical estimations. The English investigators see in these findings, under conditions which are presumably not pathologic in the usual sense, a confirmation of the theories of Leathes and Rosenfield that a fatty infiltration of the liver is to be looked on as a physiologic and not a pathologic process.—*Journal American Medical Association*.

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ANONYMOUS COMMUNICATIONS.

Anonymous communications will not appear in the columns of this Journal, no matter how meritorious they may be.

Editorials.

PRESIDENT WALLIS APPOINTS COMMITTEES FOR 1915-1916.

The following committees have been appointed by Dr. J. C. Wallis, President of the Arkansas Medical Society:

Committee on Scientific Program—William R. Bathurst, chairman, Little Rock; Frank Vinsonhaler, Little Rock; C. P. Meriwether, Little Rock (ex officio).

Committee on Medical Legislation—Morgan Smith, chairman, Little Rock; Anderson Watkins, Little Rock; William Breathwit, Pine Bluff; J. C. Wallis, Arkadelphia (ex officio); C. P. Meriwether, Little Rock (ex officio).

Committee on Board of Visitors to the Medical Department of the University of Arkansas—H. N. Dickson, chairman, Paragould; N. R. Townsend, Arkadelphia; T. J. Stout, Brinkley.

Committee on Necrology—R. H. T. Mann, chairman, Texarkana; M. Fink, Helena; J. B. Roe, Newark.

Committee on Trained Nurses—J. G. Eberle, chairman, Fort Smith; J. D. Southard, Fort Smith; C. M. Lutterloh, Jonesboro.

Committee on Health and Public Instruction—F. B. Young, chairman, Little Rock;

John Stewart, Booneville; St. Cloud Cooper, Fort Smith.

Committee on Sanitation and Public Hygiene—C. W. Garrison, chairman, Little Rock; H. Thibault, Scott; T. M. Fly, Little Rock.

Committee on Cancer Research—M. D. Ogden, chairman, Little Rock; H. H. Kirby, Little Rock; W. A. Snodgrass, Little Rock.

Committee on Memorial Tablet of the Late John S. Shibley—L. P. Gibson, chairman, Little Rock; J. G. Eberle, Fort Smith; A. E. Hardin, Fort Smith; Frank Vinsonhaler, Little Rock; M. D. Ogden, Little Rock.

LET OTHER BOARDS OF HEALTH FOLLOW.

At a meeting of the Arkansas Board of Health a resolution was adopted calling on the County Health Boards to visit the public schools in their respective counties and give instruction to the children on sanitation and health matters at least once a year. We are pleased to note that the Health Board of Craighead County has taken this matter up and Drs. C. M. Lutterloh and H. A. Stroud have volunteered to visit the schools throughout the county.

The teachers of Craighead County have also agreed to accept this duty and July 30 was set aside as "Health Day," when at the various schools programs were rendered and such matters discussed as sanitation, diseases and their preventatives; the fly and how to screen against it and "swat" it; the mosquito as a disease carrier, and kindred subjects.

It is most important that the children be instructed in sanitation and health. We all know what ignorance and diffidence exist among many grown-ups on these subjects, and ignorance will be perpetuated if the children are not impressed with the importance of the conservation of health. Let the good work go on. It is to be hoped that every Health Board will take up this essential work and that the other teachers all over the State will follow the good example set by those in Craighead County.

THOUSANDS WILL READ IT.

Following the request made at the May meeting of the State Society we devoted the July issue to cancer. Beside the various original articles we had an editorial dealing with the subject. But in presenting this to

our readers it went almost wholly to those professional men already acquainted with the facts; whereas, the really important matter is to bring it to the attention of the laymen everywhere. This has been accomplished in a large measure by the courtesy of the lay press. The editorial, nearly a column in length, was reprinted in full by the Arkansas Gazette, and so was carried to its 35,000 readers of the Sunday issue. It was also published in the twice-a-week Gazette. The Western Newspaper Union, which supplies the ready-print and plates to the newspapers in the smaller towns throughout Arkansas, North Louisiana, North Texas, and Southern Missouri, also used the matter, and thus it will be presented to perhaps 100,000 readers, where it will do the most good. Our thanks are due the press for co-operation in this fight for humanity.

OUR ADVERTISING DEPARTMENT.

Our advertising department is gaining in popularity. For the front cover we have just closed a contract with W. B. Saunders Company of Philadelphia, one of the largest publishers of medical works in the world. It means something when such a concern recognizes the value of the Arkansas Medical Journal as an advertising medium to the extent of signing a contract for a year. But let our readers remember that its value as such must depend on the extent to which the members of the profession in Arkansas patronize our advertisers. If our advertisers do not get the business they will not keep their ads standing. They expect results. They would be foolish to pay out good money without getting results. And they know when they are getting them. Remember, also, that the more advertising the Journal secures the better journal it will be. The publications of W. B. Saunders Company are known to be of the best, and, irrespective of the advertising, physicians should keep in touch with them. This principle applies to all our advertisers, however. If an advertisement appears in the Journal our readers may rely on the firm being reliable. Last month the Medical Department, University of Arkansas, gave us an order announcing their requirements for their thirty-seventh annual session which begins September 14, 1915. We want our readers to read the advertisements as well as the reading

matter. They are well prepared and readable and may be read with profit.

WORK OF THE A. M. A.

In his presidential address before the American Medical Association, at its sixty-sixth annual session at San Francisco, June 22, 1915, Dr. William L. Rodman, Philadelphia (Journal A. M. A., June 26, 1915), reviews some of the work of the association, which he considers most noteworthy. He first takes up the founding of the American College of Surgeons, which seems to him to be an offshoot of the association, and to fill a distinct need in elevating the general tone and level of American surgery. The Council on Health and Public Instruction is noticed at considerable length. Its press-bureau bulletins are authoritative articles on health topics and meet a need of the public and also of the daily press in giving out authoritative information to replace the too often garbled statements of medical facts that have appeared. One aim of the council is to unite all public health organizations into a national league which might also include special societies, such as those for the study of tuberculosis, cancer, etc. The Bureau of Literature has circulated pamphlets on health topics and sent out speakers who have addressed large and interested audiences in different parts of the country. The co-operation by the government is also noticed as important and very promising. The activities of the Medicolegal Bureau are still in their beginnings, and differences still exist in the profession in regard to public health legislation. Nothing could be more unwise or undesirable than to have it involved in hasty or ill-considered legislation. The Propaganda Department has aroused an increasing public interest in the matter of patent medicines, and the Council on Pharmacy and Chemistry is still attacking the nostrum evil. It has three chemists giving their whole time testing such preparations. A few newspapers give their medical advertisements to the Propaganda Department for its opinion before publishing them, and the so-called independent medical journals should do as much. The work of the Council on Medical Education, its aims and performances, are reviewed at length, and it has reached its ideal standard, at least on paper. The number of medical schools has

been thinned, and a large proportion of those less qualified to do good work have quit business. The standard of preliminary education has been raised, and Rodman seems to think that the time has come for marking time a little and that an irreducible minimum has been reached. Of course, there is no limit to a maximum that any highly endowed and exceptionally circumstanced institution may attain. The requirement of the college year, or years, as a universal one are not altogether endorsed, perhaps not so much as some in the profession would favor, and he apparently would have the scientific instruction that can be given in well-equipped high schools allowed to pass, for the present, at least. We should demand a more thorough preparation of students in English, and he justifies the action of the Council in omitting German and French in the preliminary requirements. There is always danger of overdoing a good thing, and the Council was wise in omitting after 1914 the A plus from its classification of medical schools. A National Board of Medical Examiners has been organized and will hold its first examination at Washington in October, the character and scope of which will be such that no state ought to deny recognition to anyone who passes it. At the same time, Rodman wishes to make it clear that such a board cannot and should not interfere with the several state boards. Its examinations are for the exceptional, and not the average man. It should be a simple matter, however, to induce all the states to recognize the national board at once, as its only aim is to improve the existing conditions and remedy certain defects due to our local laws and form of government, provided it gives an examination equal to that required by the most exacting state in the Union. Canada has had for several years such a national board, and everybody is pleased with it. Its examinations will doubtless be similar to that of the Conjoint Board of the Royal Colleges of Medicine and Surgery in England. Rodman gives a list of the members of the national board as at present organized. They represent every section of the country, though several have not yet been appointed to fill the probable total number of fifteen.

Abstracts.

THE USE OF WORDS.

The subject of the Chairman's address before the Section on Practice of Medicine at the late meeting of the American Medical Association at San Francisco, by Dr. Thomas McCrae, Philadelphia (*Journal A. M. A.*, July 10, 1915), was the use and abuse of words. He called attention to the many disputes which have arisen where the use of words was involved, and held that we should use a rigid standard, especially in medical matters. Many people have their own peculiar conceptions of terms, and words are given attributes they do not possess. For example, the word pneumonia involves quite a variety of conceptions in the minds of different persons. In a meeting of medical teachers ten years ago the terminology of the diseases of the chest was discussed and the varied meanings attached to the same term brought out in the discussion surprised everyone. Much difference of opinion will be found in the use of the words bronchial and tubular, and students have been graduated for years with erroneous ideas as to the meaning of a certain term. Many illustrations are given by McCrae as to the misuse of the names of diseases and symptoms. He says if one wishes to find confusion worse confounded let him read an article in French or German dealing with arthritis. What the term rheumatism means in many of these no one but the author can tell. The use of the word rheumatism leads to careless diagnosis, and the list of diseases and conditions which have been classed under this head is a long one. The word phthisis is another misused term, as well as Bright's disease, asthma, bilious and biliousness, typhoid, hysteria, etc. (all of which have numerous meanings), and many others which need to have some attention as to clearness in regard to their use. For those who are teachers the duty of accuracy in the use of words is important. How can definite ideas be conveyed by indefinite terms? For proper therapy it is equally important to have clear ideas. Treatment directed to a name is not likely to help the patient. When so much depends on the choice of terms is it not worth while to use them with care and precision?

NEPHRITIC INFECTION.

A form of acute hemorrhagic nephritis, occurring as a result of focal infections and usually following acute tonsillitis, is described by C. G. Grulee and F. W. Gaarde, Chicago (Journal A. M. A., July 24, 1915). During the past year and a half they have observed cases of hematuria which seemed to have a distinct sequence of symptoms and a clinical history and laboratory findings that might be regarded as distinctly significant. Six cases are reported. In every case the child had had a prior attack of tonsillitis or like infection of the nasopharynx. In two of the cases recovery was almost immediate, in one from removal of the tonsil and in the other from drainage of the mastoid. In two of the cases the culture from the urine was negative, in two of the others the *Staphylococcus albus* was found, one a *staphylococcus* producing slight hemolysis, and in the other a *Staphylococcus albus* and a *Streptococcus hemolyticus*. The blood culture in one instance showed an organism similar to that found in the urine. When taken the organisms obtained on cultures from the throat showed a great similarity to those obtained in the urine. Five of the cases occurred in boys varying in age from 2 to 6 years, which is regarded as significant. With the exception of one case the tonsillitis preceding the condition had subsided, preceding the hematuria six or seven days. The latter came on suddenly with albumin and casts, and generally showed a tendency to rapid remission. The temperature was high and irregular in the acute stages; the amount of prostration was surprisingly slight. There was no edema except in the mastoid case, and in none a history of giving of drugs that might cause bleeding. That it was not a sequel of a mild case of scarlet fever, the lack of edema or pallor, or anything like uremia, and no cases of scarlet fever, developing in the associates, would seem to indicate. Little is said concerning treatment, but it was thought wise to give urinary antiseptics on account of the organisms in the urine. Fisher's solution was made use of in two cases. In one case the effect was very slight, and in the other the urine was already clearing up before it was given. Removal of a focus of infection brought about excellent results.

TEACHING OF HYGIENE.

M. J. Rosenau, Boston (Journal A. M. A., July 24, 1915), says it may surprise some to learn that hygiene is included as a major subject in the curriculum of only three medical schools in this country, the University of Pennsylvania, the University of Michigan, and Harvard. The teaching of hygiene is becoming increasingly difficult owing to the widening of the subject, and it has been necessary to establish special schools for the training of hygienic experts for health officers. Sanitation and hygiene has become a separate profession. At Harvard, the teaching of hygiene consists of lectures and demonstrations, laboratory work, sanitary excursions, and sanitary surveys. The required course comes in the second year of the medical curriculum, and in addition a fourth year, elective, is offered for those who desire to go further into some phase of the subject. The backbone of the course is the laboratory work and the sanitary survey. This last was first used in the School of Health Officers of Harvard Technology and was later introduced into the course of preventive medicine and hygiene of the Harvard Medical School. Each student in medicine is required to make a sanitary survey of some city or town and submit a report. This must include collection of data, interpretation of the facts, and criticisms and recommendations. The outline which is placed in the hands of every student is given in the article. Boston is a good place for an exercise of this character, there being fifty-two cities and towns within fifteen miles of the Statehouse. Students are encouraged to select small communities, and, if possible, their own home town. Some students prefer to make the survey during their vacation. No special instructions are given, but he is placed on his own initiative. He is simply advised to get acquainted with the town and some of its people, find out something of its history, geology, geography, and history, and then go into details. The students have generally found the time and some of their reports are splendid contributions, and often enlivened with photographs. Some of them have carefully prepared charts and some have judicious summaries and well considered criticisms.

Personals.

Dr. D. R. Hardeman and family, of Little Rock, are in San Francisco.

Dr. John R. Dibrell, of Little Rock, is spending the summer in Colorado.

Dr. A. J. McDonald has moved from Emerson, Ark., to Springhill, La.

Dr. and Mrs. Charles R. Shinault and their daughter, Miss Josephine, will spend the summer at Horn Springs, Tenn.

Dr. R. H. T. Mann, of Texarkana, is attending eye, ear, nose, and throat clinics in New York City.

Dr. J. P. Runyan, of Little Rock, attended a reunion of Confederate Veterans this month at McNeil.

Dr. J. C. Harris, of Harrisburg, has moved to Little Rock to accept a position on the staff at the State Hospital for Nervous Diseases.

Arkansas physicians visiting in Little Rock during the past month include J. C. Wallis, Arkadelphia; T. J. Stout, Brinkley; S. N. Hutchison, Joiner, and J. R. Lynn, Hazen.

Dr. Seale Harris, Secretary and editor of the Journal of the Southern Medical Association, announces that during the month of October he will move from Mobile to Birmingham and limit his practice to diseases of the stomach and intestines.

Every reputable physician in the State should be a member of the Arkansas Medical Society and those now in membership should try to get the desirable outsiders to join. Turn to the roster printed in this issue and see if your name is given correctly. If not, drop a postal to Dr. C. P. Meriwether, Secretary Arkansas Medical Society, Little Rock.

New and Nonofficial Remedies.

Since publication of New and Nonofficial Remedies, 1915, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

CAUSTIC APPLICATORS, SPECIAL (Silver Nitrate, 50 per cent).—Wooden sticks, 12 inches long, tipped with a mixture of silver nitrate 50 per cent and potassium nitrate 50 per cent.

Antiseptic Supply Company, New York (Journal A. M. A., July 3, 1915, p. 29).

ENZYMOL.—An extract of the fresh animal stomach containing the gastric enzyme in active standardized form and having an acidity due to combined hydrochloric acid. Enzymol is stated to be useful as an application to old sores, ulcers, and slow-healing wounds. It is said to correct offensive odors, to exert a solvent action on pus, sloughing and necrotic tissue, and to impart a healing stimulus. For the solution of necrotic bone and in some abscesses hydrochloric acid is added to the diluted extract (Journal A. M. A., July 24, 1915, p. 333).

CEPHAELINE.—An alkaloid obtained from ipecac. It is relatively more emetic and less nauseant than ipecac, and causes more renal irritation and less cardiac depression. It may be used as an emetic and expectorant. It is insoluble in water, but forms water soluble salts.

SYRUP CEPHAELINE, LILLY.—A non-proprietary preparation containing cephaeline hydrochloride, equivalent to 2.5 grain cephaeline per fluid ounce. Eli Lilly & Co., Indianapolis, Ind. (Journal A. M. A., June 19, 1915, p. 2067).

OUABAIN AMPULES, H. W. & Co.—Each ampule contains 0.5 mg. crystallized ouabain. Hynson, Westcott & Co., Baltimore, Md. (Journal A. M. A., June 19, 1915, p. 2067).

Propaganda for Reform.

ANTOX.—"Dr." W. J. Garbutt, Milwaukee, Wis., sells Antox. It is said to cure every contagious disease if taken at the onset. Garbutt issues two sets of advertising, one for physicians and one for the public. The A. M. A. Chemical Laboratory found that essentially each 100 c.c. contained approximately 0.92 gram ammonium chlorid, 0.12 gram hydrogen chlorid (equivalent to 1.2 c.c. of diluted hydrochloric acid, U. S. P.), 0.35 gram hydrogen sulphite (equivalent to 6 c.c. of sulphurous acid, U. S. P.), and 18.5 grams of invert sugar (Journal A. M. A., July 3, 1915, p. 45).

GRAY'S GLYCERINE TONIC.—The Council on Pharmacy and Chemistry reports that Gray's Glycerine Tonic Comp. (Purdue Frederick Company, New York) is not eligible for admission to New and Nonofficial Remedies be-

cause its composition is secret; because grossly unwarranted therapeutic claims are made for it; because the name of this pharmaceutical mixture does not indicate its chief constituent, gentian, and because its use is unscientific and a detriment to rational medicine. From the statements made in regard to its composition it appears that besides the alcohol, gentian is the only active drug present. Nevertheless the "tonic" is said to be good for no less than thirty-two diseases, ranging from amenorrhea to whooping cough (Journal A. M. A., July 10, 1915, p. 189).

LIQUID PETROLATUM.—Liquid Petrolatum is sold under proprietary names such as Bakulol, Interol, Med-O-Lin, Muthol, Semprolin, Whiteruss, Nujol, and Stanolax. Nujol is put up by the Standard Oil Company, of New Jersey, and Stanolax by the Standard Oil Company, of Indiana. Probably before long each of the other Standard Oil companies will have its own name for liquid petrolatum—that is, if physicians will tolerate it. There is no excuse whatever for special brands of liquid petrolatum, so far as the medical profession and the public are concerned. But it is otherwise with those who supply the product. More can be charged for a product sold under a trademarked name and claims can be made which could not be made when the product is sold under its proper title, liquid petrolatum (Journal A. M. A., July 10, 1915, p. 175).

TONGALINE AND PONCA COMPOUND.—The Council on Pharmacy and Chemistry reports that Tongaline, Tongaline Tablets, Tongaline and Lithia Tablets, Tongaline and Quinine Tablets, and Ponca Compound Tablets, products of the Mellier Drug Company, St. Louis, are ineligible for New and Nonofficial Remedies because their composition is indefinite and semi-secret; because grossly exaggerated therapeutic claims are made for them; because their names are misleading, and because their composition is unscientific and irrational. Tongaline is essentially a sodium salicylate mixture. Its name is derived from one of the asserted constituents, "tonga," an inert, long discarded mixture of barks and herbs said to be gathered and prepared by Fiji Islanders. In addition, Tongaline is stated to contain blue cohosh, colchicum, and pilocarpin. The amounts of the ingredients are not now declared. Neither is the composition of the Tongaline and Quinine and Tongaline and Lithia

Tablets made known. Ponca Compound is a "female weakness" remedy in tablet form. The name suggests that "Ponea" is a medicinal substance and at one time "Ext. Ponea" was named as an ingredient. Now the tablets are said to contain extract of mitchella repens, senecioin, helonin, caulophyllin, and viburnin. Not only are no quantities given, but the character of senecioin, helonin, caulophyllin, and viburnin is not made known (Journal A. M. A., July 17, 1915, p. 269).

HOROWITZ-BEEBE CANCER TREATMENT.—Newspapers are giving much attention to a new "serum"—Autolysin—for the treatment of inoperable cancer. This had its origin in the publication by S. P. Beebe, formerly professor of experimental therapeutics at Cornell Medical School, of a system of treatment by "Alexander Horowitz, Ph.D., an Austrian biologist and chemist" and its trial at the General Memorial Hospital. The composition of the preparation is not disclosed as to quantities, but it is said to be made from: *Menyanthes trifoliata*, *Melilotus officinalis*, *Mentha crispa*, *Barsiea alba*, *Anemone hepatica*, *Viola tricolor*, *anthemis*, *fructus colocynthidis*, *lignum quassiae*, *Urtica dioica*, *radix rhei*, and hedge hyssop. One critic of the matter has remarked that apparently the only ingredient which has been overlooked in the preparation of the new remedy was a rabbit's foot (Journal A. M. A., July 24, 1915, p. 336).

ECHINACEA.—This is one of the drugs which the Council on Pharmacy and Chemistry has found valueless. Confirming this, the chemists of a pharmaceutical house report that they were unable to detect the presence of any physiologically active substance in the drug (Journal A. M. A., July 24, 1915, p. 342).

O'Neil's Malt Whisky, Mountain Valley Spring Water, Stafford Mineral Springs Water, Sa-Yo Mint Jujubes, Mouchens' "Family Physician," Dr. Martel's Female Pills, Quickstep, Frye's Remedy, Gray's Glycerin Tonic. A "Notice of Judgment" has been issued by the Federal authorities regarding each of the proprietary preparations named. Each was found to be misbranded under the Shurley amendment to the Federal Food and Drugs Act which declares it illegal to make false and unwarranted therapeutic claims for medicines (Journal A. M. A., July 14, 1915, p. 350).

M. I. S. T. No. 2.—M. I. S. T. (Murray's Infallible System Tonic) No. 2 is sold as a cure for cancer, locomotor ataxia, paralysis, diabetes, suppressed and profuse menstruation and a host of other conditions. Analysis in the A. M. A. Chemical Laboratory demonstrated that M. I. S. T. No. 2 consists of capsules which contain aloes and blue mass as their essential constituents (Journal A. M. A., July 31, 1915, p. 446).

CALDWELL'S SYRUP PEPSIN.—Some of the claims made for this "patent medicine" are "Positive Relief for Constipation," "Dispels Colds, Headache, Fevers, and all ills caused from Bad Digestion, Foul Stomach, Torpid Liver, and Sluggish Bowels." While the name and the claim suggest the presence of pepsin, L. F. Kebler, the government chemist, reported that this nostrum is an aqueous alcoholic solution containing laxatives flavored with oil of peppermint and devoid of any appreciable amounts of pepsin. Regarding the laxative constituents the A. M. A. Chemical Laboratory reports that a senna preparation is the essential laxative constituent (Journal A. M. A., July 31, 1915, p. 447).

CALCREOSE. — Calcreose (Maltbie Chemical Co., Newark, N. J.) contains in loose combination approximately equal weights of creosote and lime. The advertising claims having been revised, and Council on Pharmacy and Chemistry postponed definite action pending submission of proof (1) that the large doses of Calcreose recommended furnish large amounts of creosote to the blood and (2) that patients taking these large doses do not suffer from digestive disturbances, loss of nutrition, albumin in the urine or phenol urine as claimed. At the same time it was emphasized that this action did not indicate a belief on the part of the Council that enormous doses of creosote are necessary or beneficial in tuberculosis. So far, the Maltbie Chemical Co. has not submitted to the required evidence. As the Council's postponement of a report has been made to appear as a quasi-approval, the Council voted to announce that Calcreose had been refused recognition because the therapeutic claims were exaggerated and unwarranted by the evidence (Journal A. M. A., June 26, 1915, p. 2155).

INTRAVENOUS RADIUM SOLUTION.—Standard Radium Solution for Intravenous Use (Radium Chemical Co., Pittsburg), is sold

in ampules, each containing radium bromide equivalent to 0.05 mgm. radium element and 0.0002 gm. or less of barium bromide dissolved in 2 c.c. sterile normal salt solution. While the Council on Pharmacy and Chemistry confirmed the claimed composition of this solution so far as concerns the radium content, it refused recognition to the preparation because there is no clear evidence that intravenous injection has any advantage over the other methods of administering radium. The Council holds that on the basis of our present knowledge radium should be used intravenously only by those in a position to study its effects carefully and in an institution equipped with the necessary facilities for such study (Journal A. M. A., June 26, 1915, p. 213).

RHEUMALGINE. — Rheumalgine (Eli Lilly & Co., Indianapolis) is put up both in tablet form and as a liquid. Each tablet, or teaspoonful of the liquid, is said to contain: "Strontium salicylate from natural oil 5 gr., hexamethylenamin 2 gr., colchicine 1-200 gr." The Council on Pharmacy and Chemistry found Rheumalgine in conflict with its rules in that unwarranted therapeutic claims were made because the combination is conducive to uncritical prescribing and because the name, being non-descriptive of its composition, encourages thoughtless use (Journal A. M. A., June 26, 1915, p. 2156).

TYPHOID VACCINE.—Extensive clinical trial indicates that typhoid vaccine may influence the course of the disease favorably. The results indicates that, if used with discretion, typhoid vaccines do no harm (Journal A. M. A., June 26, 1915, p. 2139).

Obituary.

DR. A. A. McCLENDON.

The Journal grieves to announce the death of Dr. A. A. McClendon, of Marianna, which occurred on July 24, of acute nephritis. He was cut off at an age (42 years) when the professional man has just begun to ripen in experience, with the best of his lifework before him. Dr. McClendon was born at Alexander City, Ala., June 28, 1873. He was graduated in medicine at the University of Louisville in 1893 and in that year moved to Arkansas, settling at Gill, where he practiced his profession until January, 1904, when he

moved to Marianna, where he lived until his death. Meanwhile, in 1898 he was graduated at Tulane University, New Orleans.

Dr. McClendon had built up a good practice and gave every promise of a successful career. He believed in organization and was a member of his county medical society as well as the Arkansas and the American Medical Associations. He was just the kind of a man and physician whom the profession cannot well spare. The sympathies of the Journal go out to his bereaved people.

DR. A. M. BLAKE.

Dr. A. M. Blake, of Olla, La., died at Reader, Ark., on August 3. Dr. Blake was returning from a professional call in a motor car with Dr. B. V. Powell, unfortunately colliding with a passing train, sustaining fatal injuries.

County Societies.

INDEPENDENCE COUNTY.

(Reported by S. A. Drennen, Secretary.)

The Independence County Medical Society met August 2. Members present: J. B. Ivy and W. S. Baldwin, of Guion; J. Hayden and P. Jeffrey, of Bethesda; W. J. Long, of Sulphur Rock; V. D. McAdams, of Cord; L. T. Evans, of Mount Pleasant; J. W. Case, C. G. Hinkle, R. C. Dorr, O. J. T. Johnston, W. B. Lawrence, F. A. Gray, W. F. Ball, and S. A. Drennen, of Batesville.

Visitor: K. W. King, of Jamestown.

After the reading of the minutes the following resolution was introduced and unanimously adopted:

"Whereas, It is becoming more and more evident that the people, and especially the wage-earning classes, are being deceived and defrauded, and not infrequently their health being impaired through the use of remedies of unknown composition; and,

"Whereas, The Council on Pharmacy and Chemistry of the American Medical Association has repeatedly proven the worthlessness and fraudulency of many of these so-called remedies; therefore be it

"Resolved, That we, the Independence County Medical Society, a component branch of the State Medical Association, a constituent association of the American Medical Association,

believe that every effort must be made to do away with the evils which result from the exploitation of the sick for the sake of gain. Earnestly believing that the continued toleration of secret, semisecret, unscientific or untruthfully advertised proprietary medicines is an evil that is inimical to medical progress and to the best interests of the public, we declare ourselves in sympathy with, indorse, and by our best efforts will further, the work which has been and is being done by the Council on Pharmacy and Chemistry of the American Medical Association in the attempt to eliminate this evil."

After the adoption of the above resolution the following program was rendered:

"Some Points the General Practitioner Should Know in the Diagnosis of Gastric and Duodenal Ulcer," by L. T. Evans.

"Tinea Favosa," with the report of five cases, W. S. Baldwin.

"Cancer, Importance of Early Diagnosis," F. A. Gray.

"Exophthalmic Goiter," W. F. Ball.

"Ilio-colitis," W. J. Long.

"Medical Ethics," J. B. Ivy.

After the reading and discussion of the above papers the Society adjourned to meet again October 4.

FRANKLIN COUNTY.

(Reported by Dr. Thomas Douglass, Secretary.)

On July 6 we had a good meeting, a record-breaker for attendance, there being seventeen members present. They were Drs. Warren (presiding), Gibbons, J. P. and T. B. Blakely, Wear, Blackburn, Downey, Rambo, Benefield, Weaver, Williams, Post, Turner, Jacobs, Porter, and Douglass.

Dr. Benefield presented a case of renal calculus.

Dr. Blakely delivered himself of a few heretical remarks on the subject of Fee-splitting. We dealt with him gently, but firmly. Our members wholly condemn the practice and never accept a split fee unless they get a good chance.

The subject of Pellagra was thoroughly discussed. There are about fifty to seventy-five cases in this county.

Another good meeting was held August 3, Dr. Blackburn, Vice President, in the chair.

Present also: Drs. J. P. and T. B. Blakely, Williams, Rambo, Downey, Post, and Douglass.

Dr. Rambo presented an interesting case of rheumatism with cardiac trouble.

Dr. Downey made an interesting case report.

Pellagra again came up for discussion, especially with regard to its communicability. It was decided to ask Dr. C. W. Garrison to come up and be present at our next meeting September 7, when we hope to have a number of pellagra cases present.

Book Reviews.

PREVENTION AND TREATMENT OF INFECTIONS.—By Oliver T. Osborne, A.M., M.D., Professor of Therapeutics and formerly Professor of Clinical Medicine in Yale Medical School; Member of the Council on Pharmacy and Chemistry, etc. New Haven, Conn. Published by The Journal of the American Medical Association, 535 North Dearborn Street, Chicago, Ill.

This little book is an elaboration of the articles which appeared in The Journal of the American Medical Association under the title "Prevention is Greater Than Cure."

The subjects considered are the influence of the ordinary factors of life on health, the modern methods for the prevention of disease and the treatment of the common disorders, especially those affecting the growing child. The book is not exhaustive and is of such practical value that it should be in the hands of every physician.

PATHOLOGICAL TECHNIQUE.—Including directions for the performance of autopsies and for clinical diagnosis by laboratory methods. By F. B. Mallory, M. D., Associate Professor of Pathology, Harvard Medical School; and J. H. Wright, M. D., Pathologist to the Massachusetts General Hospital. Sixth edition, revised and enlarged. Octavo of 536 pages, with 174 illustrations. W. B. Saunders Company, Philadelphia, 1915. Cloth, \$3.00.

This book meets the wants of students and physicians who have more or less opportunity to do general pathological work, as well as a source of reference for the advanced. This book is divided into three parts, Postmortem Examinations, Bacteriological Methods and Histological Methods. Among the new additions to this edition we find the complement fixation test for gonorrheal infection, Lang's colloidal gold test for syphilis of the nervous system, the complement fixation test for echinococcus cyst, and Eynes and Sternberg's

silver impregnation method for staining the *Treponema pallidum* in sections, descriptive of the bacillus of pertussis, of the blastomyces and the sporothrix *Schenckii* have also been inserted.

SURGERY OF THE BLOOD VESSELS.—By J. Shelton Horsley, M. D., F. A. C. S.; Surgeon in charge of St. Elizabeth's Hospital, Richmond, Va.; a Founder and Fellow of the American College of Surgeons; ex-President of the Richmond Academy of Medicine and Surgery; member of Southern Surgical and Gynecological Association, etc. Published by C. V. Mosby Company, St. Louis, Mo., 1915. Price, \$4.00.

The author of this volume presents the scientific and the laboratory features of vascular surgery. The history and technic of suturing blood vessels and transfusion of blood is described in detail, as well as the treatment of hemorrhage, pathologic and traumatic, and such subjects as aneurisms, thrombosis and embolism, congenital nevi, varicose veins and hemorrhoids.

GENERAL SURGERY.—By John B. Murphy, A. M., M. D., F. A. C. S., Chicago. Volume II, Series 1915. The practical medical series, comprising ten volumes of the Year's Progress in Medicine and Surgery. Published by the Year Book Publishers, 327 S. LaSalle Street, Chicago. Price, \$2.00; price of the series of ten volumes, \$10.00.

This volume covers the field of general surgery with many illustrated articles. In the introduction Dr. Murphy says: "Infections of the gall bladder without stone are more common lesions than is generally supposed. The testing of the gall bladder contents for micro-organisms by culture or smear-methods, has little value as indicating the presence of infection. Portions of the mucosa should be excised for cultural and microscopic purposes." He further says: "Splenectomy in chronic splenomegalic jaundice, especially in forms with pernicious anemia, has been giving gratifying results."

MEDICAL ELECTRICITY AND ROENTGEN RAYS AND RADIUM.—By Sinclair Tousey, A. M., M. D., Consulting Surgeon to St. Bartholomew's Clinic, New York City. Second edition, thoroughly revised and enlarged. Octavo of 1,219 pages, with 798 practical illustrations, 16 in colors. W. B. Saunders Company, Philadelphia, 1915. Cloth, \$7.50 net; half morocco, \$9.00 net.

This volume accomplishes a very useful purpose and responsibility in directing treatment by electricity and Roentgen rays. The author describes, Static Electricity, Dynamic Electricity, Electricity Occurring in Animals and Plants, Physiologic Electrodes, Electro-

diagnosis, Ionic Medication by Electrolysis, Examples of Galvic, Faradic and Sinusoidal Electrotherapy, Physiologic and Therapeutic Effects of Electromagnets, Electricity in Diseases of the Nervous System, High Frequency Currents, Pneumonia Accompanying the Transmission of Electricity Through Gases, Phototherapy, The X-ray, Roentgenotherapy and Radium.

PROGRESSIVE MEDICINE.—A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by H. A. Hare, M. D., assisted by L. F. Appleton, M. D., Philadelphia. Volume XVII, Number 1. March 1, 1915. Published by Lea & Febiger, Philadelphia. Price, \$6.00 per annum.

Contents: "Surgery of the Head and Neck," by Charles H. Frazier, M. D.; "Surgery of the Thorax, Excluding Diseases of the Breast," by George P. Muller, M. D.; "Infectious Diseases, Including Acute Rheumatism, Croupous Pneumonia, and Influenza," by Floyd M. Crandall, M. D.; "Rhinology and Laryngology," by George B. Wood, M. D.; "Otology," by Truman L. Saunders, M. D.

A MANUAL OF DISEASES OF INFANTS AND CHILDREN.—By John Ruhrah, M. D., Professor of Diseases of Children, College of Physicians and Surgeons, Baltimore, Md. Fourth edition, thoroughly revised. 12 mo. volume of 552 pages, 175 illustrations. W. B. Saunders Company, Philadelphia, 1915. Cloth, \$2.50 net.

While this book was originally prepared for medical students it is equally as valuable for the general practitioner who wishes to quickly grasp the important parts of the subject of pediatrics. The closing chapters refer to "Therapeutics for Infants and Children," "The Medical Inspection of School Children," "The Measuring of the Development of the Intelligence of Children," "A Sample Pamphlet of Information for Distribution Among the Poor in Summer."

PRINCIPLES OF HYGIENE.—For students, physicians and health officers. By D. H. Bergey, M. D., First Assistant, Laboratory of Hygiene, and Assistant Professor of Bacteriology, University of Pennsylvania. Fifth edition, thoroughly revised. Octavo of 531 pages, illustrated. W. B. Saunders Company, Philadelphia, 1915. Cloth, \$3.00 net.

This book has been written to meet the needs of students and give the general principles

upon which the health officer deals with conditions which are detrimental to health or which tend to improve health. As stated in the preface of this book, "the entire range of subjects comprising the comprehensive field of hygiene has not been discussed, but all those subjects which appear to the author to be most important for those for whom the book has been prepared have received the consideration which their relative importance demanded."

NERVOUS AND MENTAL DISEASES.—By Archibald Church, M. D., Professor of Nervous and Mental Diseases in Northwestern University Medical School, Chicago; and Frederick Peterson, M. D., formerly Professor of Psychiatry, Columbia University. Eighth edition, revised. Octavo volume of 940 pages, with 350 illustrations. W. B. Saunders Company, Philadelphia, 1914. Cloth, \$5.00 net; half morocco, \$6.50 net.

This is not a joint work of two writers, but each author—Dr. Church in Neurology, and Dr. Peterson in Psychiatry—has contributed to the making of a single volume what might have made a separate monograph. They present their facts clearly, directly and with brevity, despite the difficulty of condensing two great subjects within the limits of a single volume.

CLINICAL DIAGNOSIS.—A manual of laboratory methods. By James Campbell Todd, M. D., Professor of Pathology, University of Colorado. Third edition, revised and enlarged. 12 mo. of 585 pages, with 176 text illustrations and 13 colored plates. W. B. Saunders Company, Philadelphia, 1914. Cloth, \$2.50 net.

This interesting and very useful little volume presents the important laboratory methods, which have clinical value, and a brief guide to interpretation of results. Ten chapters are given describing the following: Sputum, urine, blood, stomach, feces, animal parasites, miscellaneous examinations, bacteriological methods, preparation and use of vaccines, and serodiagnostics methods. In the appendix we find a description of the apparatus and reagents required to make the different tests; also a list of weights, measures, etc., are given with their equivalents.

OFFICERS OF THE AMERICAN MEDICAL ASSOCIATION, 1915-1916.

Next Annual Session, Detroit, Mich., 1916.

PRESIDENT—William L. Rodman, Philadelphia.
 PRESIDENT-ELECT—Rupert Blue, Washington, D. C.
 FIRST VICE PRESIDENT—Albert Vander Veer, Albany, N. Y.
 SECOND VICE PRESIDENT—George B. Evans, Dayton, O.
 THIRD VICE PRESIDENT—Donald Campbell, Butte, Mont.
 FOURTH VICE PRESIDENT—Herbert C. Moffit, San Francisco.
 SECRETARY—Alexander R. Craig, 535 N. Dearborn St., Chicago.
 TREASURER—William Allen Pusey, Chicago.
 EDITOR AND GENERAL MANAGER—George H. Simmons, 535 N. Dearborn St., Chicago.
 BOARD OF TRUSTEES—W. W. Grant, Denver, 1916; Frank J. Lutz, St. Louis, 1916; Oscar Dowling, Shreveport, La., 1916; Philip Marvel, Atlantic City, 1917; Philip Mills Jones, San Francisco, 1917; W. T. Sarles, Sparta, Wis., 1917; M. L. Harris, Secretary, Chicago, 1918; W. T. Councilman, Chairman, Boston, 1918; Thomas McDavitt, St. Paul, 1918.
 JUDICIAL COUNCIL—Hubert Work, Pueblo, Colo., 1916; Randolph Winslow, Baltimore, 1917; A. B. Cooke, Los Angeles, Cal., 1918; Alexander Lambert, Chairman, New York, 1919; James E. Moore, Minneapolis, Minn., 1920; Alexander R. Craig, Secretary, 535 N. Dearborn St., Chicago.

COUNCIL ON HEALTH AND PUBLIC INSTRUCTION—H. B. Favill, Chairman, Chicago, 1916; Walter B. Cannon, Boston, 1917; W. S. Rankin, Raleigh, N. C., 1918; H. M. Bracken, Minneapolis, 1919; Milton Board, Louisville, Ky., 1920; Frederick R. Green, Secretary, 535 N. Dearborn St., Chicago.
 COUNCIL ON MEDICAL EDUCATION—W. D. Haggard, Nashville, Tenn., 1916; James W. Holland, Philadelphia, 1917; H. D. Arnold, Boston, 1918; Arthur D. Bevan, Chairman, Chicago, 1919; Robert C. Coffey, Portland, Ore., 1920; N. P. Colwell, Secretary, 535 N. Dearborn St., Chicago.
 COUNCIL ON SCIENTIFIC ASSEMBLY—George H. Simmons, Chicago, 1919; Roger S. Morris, Cincinnati, 1918; E. S. Judd, Rochester, Minn., 1917; J. Shelton Horsley, Richmond, Va., 1916; Alexander R. Craig, Secretary of the Association, ex-officio.
 COUNCIL ON PHARMACY AND CHEMISTRY—O. T. Osborne, New Haven, Conn., 1916; Torald Sollmann, Cleveland, 1916; M. I. Wilbert, Washington, D. C., 1916; Reid Hunt, Boston, Mass., 1917; J. H. Long, Chicago, 1917; Julius Stieglitz, Chicago, 1917; David L. Edsall, Boston, 1918; R. A. Hatcher, New York City, 1918; A. W. Hewlett, Ann Arbor, Mich., 1918; John Howland, Baltimore, 1919; Henry Kramer, Philadelphia, 1919; C. L. Alsberg, Washington, D. C., 1919; John F. Anderson, Washington, D. C., 1920; F. G. Novy, Ann Arbor, Mich., 1920; George H. Simmons, Chairman, Chicago, 1920; W. A. Puckner, Secretary, 535 N. Dearborn St., Chicago.

OFFICERS OF SECTIONS, 1915-1916.

PRACTICE OF MEDICINE—Chairman, Roger S. Morris, Cincinnati; Vice Chairman, John A. Lichty, Pittsburgh; Secretary, James S. McLester, Empire Bldg., Birmingham, Ala.
 SURGERY, GENERAL AND ABDOMINAL—Chairman, E. W. Andrews, Chicago; Vice Chairman, Fred T. Murphy, St. Louis; Secretary, E. S. Judd, Rochester, Minn.
 OBSTETRICS, GYNECOLOGY AND ABDOMINAL SURGERY—Chairman, Edward S. Reynolds, Boston; Vice Chairman, Alfred B. Spalding, San Francisco; Secretary, Brooke M. Anspach, 119 S. Twentieth St., Philadelphia.
 OPHTHALMOLOGY—Chairman, Walter R. Parker, Detroit; Vice Chairman, Vard H. Hulén, San Francisco; Secretary, George S. Derby, 7 Hereford St., Boston.
 LARYNGOLOGY, OTIOLOGY, AND RHINOLOGY—Chairman, Hill Hastings, Los Angeles; Vice Chairman, William R. Murray, Minneapolis; Secretary, Francis P. Emerson, 520 Commonwealth Ave., Boston.
 DISEASES OF CHILDREN—Chairman, T. C. McCleave, Berkeley, Cal.; Vice Chairman, E. P. Copeland, Washington, D. C.; Secretary, F. P. Gengenbach, 1434 Glenarm St., Denver.
 PHARMACOLOGY AND THERAPEUTICS—Chairman, R. A. Hatcher, New York; Vice Chairman, J. R. Arneill, Denver; Secretary, M. I. Wilbert, Twenty-fifth and E Sts., N. W., Washington, D. C.

PATHOLOGY AND PHYSIOLOGY—Chairman, F. P. Gay, Berkeley, Cal.; Vice Chairman, James Ewing, New York; Secretary, Isabella C. Herb, 110 S. Ashland Blvd., Chicago.
 STOMATOLOGY—Chairman, F. B. Moorehead, Chicago; Vice Chairman, Arthur D. Black, Chicago; Secretary, Eugene S. Talbot, 31 N. State St., Chicago.
 NERVOUS AND MENTAL DISEASES—Chairman, George A. Moleen, Denver; Vice Chairman, M. A. Bliss, St. Louis; Secretary, A. S. Hamilton, 513 Pillsbury Bldg., Minneapolis.
 DERMATOLOGY—Chairman, Howard Morrow, San Francisco; Vice Chairman, Everett S. Lain, Oklahoma City; Secretary, H. H. Hazen, The Rochambeau, Washington, D. C.
 PREVENTIVE MEDICINE AND PUBLIC HEALTH—Chairman, William C. Rucker, Washington, D. C.; Vice Chairman, James Adams Hayne, Columbia, S. C.; Secretary, O. P. Geier, Ortiz Bldg., Cincinnati.
 GENITO-URINARY DISEASES—Chairman, Louis E. Schmidt, Chicago; Vice Chairman, Francis McCullum, Kansas City, Mo.; Secretary, W. F. Braasch, Rochester, Minn.
 HOSPITALS—Chairman, L. W. Littig, Davenport, Iowa; Secretary, John A. Hornsby, Tower Bldg., Chicago.
 ORTHOPEDIC SURGERY—Chairman, Russell A. Hibbs, New York; Vice Chairman, E. W. Ryerson, Chicago; Secretary, Emil S. Geist, 614 Syndicate Bldg., Minneapolis.

OFFICERS OF THE ARKANSAS MEDICAL SOCIETY, 1915-1916.

Next Annual Session, Texarkana, May, 1916.

PRESIDENT—J. C. Wallis, Arkadelphia.
 FIRST VICE PRESIDENT—C. J. March, Fordyce.
 SECOND VICE PRESIDENT—F. T. Murphy, Brinkley.
 THIRD VICE PRESIDENT—O. M. Bourland, Van Buren.
 TREASURER—Wm. R. Bathurst, Little Rock.
 SECRETARY—C. P. Meriwether, Little Rock.
 COMMITTEE ON SCIENTIFIC PROGRAM—Wm. R. Bathurst, Chairman, Little Rock; Frank Vinsonhaler, Little Rock; C. P. Meriwether, Little Rock (ex-officio).
 COMMITTEE ON MEDICAL LEGISLATION—Morgan Smith, Chairman, Little Rock; Anderson Watkins, Little Rock; William Breathwit, Pine Bluff; J. C. Wallis, Arkadelphia (ex-officio); C. P. Meriwether, Little Rock (ex-officio).
 COMMITTEE ON BOARD OF VISITORS TO THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF ARKANSAS—H. N. Dickson, Chairman, Paragould; N. R. Townsend, Arkadelphia; T. J. Stout, Brinkley.
 COMMITTEE ON NECROLOGY—R. H. T. Mann, Chairman, Texarkana; M. Fink, Helena; J. B. Roe, Newark.
 COMMITTEE ON TRAINED NURSES—J. G. Eberle, Chairman, Fort Smith; J. D. Southard, Fort Smith; C. M. Lutterloh, Jonesboro.
 COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION—F. B. Young, Chairman, Little Rock; John Stewart, Booneville; St. Cloud Cooper, Fort Smith.
 COMMITTEE ON SANITATION AND PUBLIC HYGIENE—C. W. Garrison, Chairman, Little Rock; H. Thibault, Scott; T. M. Fly, Little Rock.
 COMMITTEE ON CANCER RESEARCH—M. D. Ogden, Chairman, Little Rock; H. H. Kirby, Little Rock; W. A. Snodgrass, Little Rock.
 COMMITTEE ON MEMORIAL TABLET IN MEMORY OF THE LATE DR. JOHN S. SHIBLEY—L. P. Gibson, Chairman, Little Rock; J. G. Eberle, Fort Smith; A. E. Hardin, Fort Smith; Frank Vinsonhaler, Little Rock; M. D. Ogden, Little Rock.

COUNCILOR DISTRICTS AND COUNCILORS, 1915-1916.

FIRST COUNCILOR DISTRICT—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph counties. Councilor, F. L. Nelson, Corning. Term of office expires 1917.
 SECOND COUNCILOR DISTRICT—Clebune, Fulton, Independence, Izard, Jackson, Sharp and White counties. Councilor, L. T. Evans, Barren Fork. Term of office expires 1916.
 THIRD COUNCILOR DISTRICT—Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis, and Woodruff counties. Councilor, H. H. Rightor, Helena. Term of office expires 1917.
 FOURTH COUNCILOR DISTRICT—Ashley, Bradley, Chicot, Cleveland, Desha, Drew, Jefferson and Lincoln counties. Councilor, E. C. McMullen, Pine Bluff. Term of office expires 1916.
 FIFTH COUNCILOR DISTRICT—Calhoun, Columbia, Dallas, Lafayette, Ouachita and Union counties. Councilor, H. H. Henry, Eagle Mills. Term of office expires 1917.
 SIXTH COUNCILOR DISTRICT—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier counties. Councilor, C. A. Archer, DeQueen. Term of office expires 1916.
 SEVENTH COUNCILOR DISTRICT—Clark, Garland, Hot Spring, Montgomery, Saline, Scott and Grant counties. Councilor, J. B. Crawford, Benton. Term of office expires 1917.
 EIGHTH COUNCILOR DISTRICT—Conway, Johnson, Faulkner, Perry, Pulaski, Yell and Pope counties. Councilor, W. A. Snodgrass, Chairman, Little Rock. Term of office expires 1916.
 NINTH COUNCILOR DISTRICT—Baxter, Boone, Carroll, Marion, Newton, Searcy, Stone and Van Buren counties. Councilor, Leonidas Kirby, Harrison. Term of office expires 1917.
 TENTH COUNCILOR DISTRICT—Benton, Crawford, Franklin, Logan, Sebastian, Madison and Washington counties. Councilor, J. T. Clegg, Siloam Springs. Term of office expires 1916.
 DELEGATES TO AMERICAN MEDICAL ASSOCIATION—Robert Caldwell, Little Rock; R. C. Dorr, Batesville.

The Secretary of the County Society will please notify The Journal immediately of any error or change in these offices.

D I R E C T O R Y

OF THE

COUNTY SOCIETIES OF THE ARKANSAS MEDICAL SOCIETY

COUNTY	PRESIDENT	ADDRESS	SECRETARY	ADDRESS
ARKANSAS	A. Fowler	Humphrey	M. C. John	Stuttgart
ASHLEY	E. M. Scott	Hamburg	R. G. Williams	Parkdale
BAXTER			J. J. Morrow	Cotter
BENTON	A. J. Harrison	Lowell	C. A. Rice	Rogers
BOONE	Sam Albright	Bellefonte	F. B. Kirby	Harrison
BRADLEY	W. E. Womack	Hermitage	S. H. Barnett	Warren
CALHOUN	D. F. Wilson	Hampton	T. E. Rhine	Thornton
CARROLL	E. E. Poyner	Green Forest	C. P. Sisco	Osage
CHICOT	S. W. Douglas	Eudora	E. P. McGehee	Lake Village
CLARK	J. C. Wallis	Arkadelphia	W. T. Rowland	Arkadelphia
CLAY	M. V. P. Waddle	Success	N. J. Latimer	Corning
CLEBURNE	F. G. Richardson	Heber Springs	Horace E. Ruff	Heber Springs
CLEVELAND	H. D. Sadler	Rison	H. O. Wilson	Randall
COLUMBIA	C. D. Milner	Milner	G. P. Sanders	McNeil
CONWAY	J. Halbrook	Center Ridge	J. H. Colay	Cleveland
CRAIGHEAD	J. T. Altman	Jonesboro	C. M. Lutterloh	Jonesboro
CRAWFORD	Samuel D. Kirkland	Van Buren	O. M. Bourland	Van Buren
CRITTENDEN	T. S. Hare	Crawfordsville	A. C. Parker	Clarksdale
CROSS	J. L. Griffin	Vann Dale	T. L. Stewart	Wynne
DALLAS	C. J. March	Fordyce	H. H. Atkinson	Fordyce
DESHA	A. Isom	Dumas	H. T. Smith	McGehee
DREW	W. A. Brown	Monticello	A. S. J. Collins	Monticello
FAULKNER	C. N. McCollum	Conway	J. S. Westerfield	Conway
FRANKLIN	G. D. Warren	Ozark	Thos. Douglass	Ozark
GARLAND	J. H. Chesnutt	Hot Springs	M. F. Mount	Hot Springs
GRANT	J. E. Jones	Sheridan	O. R. Kelly	Sheridan
GREENE	G. T. Hopkins	Paragould	F. M. Scott	Paragould
HEMPSTEAD			G. E. Cannon	Hope
HOT SPRING	J. M. Williams	Malvern	H. Hardy	Malvern
HOWARD	J. L. Roberts	Murfreesboro	A. Wilson Hale	Nashville
INDEPENDENCE	V. D. McAdams	Cord	S. A. Drennen	Batesville
JACKSON	E. L. Watson	Newport, Ark.	C. W. Martin	Newport
JEFFERSON	E. C. McMullen	Pine Bluff	C. K. Caruthers	Pine Bluff
JOHNSON	S. M. Graves	Mt. Levi	L. A. Cook	London
LAFAYETTE	D. W. Bright	Lewisville	F. W. Youmans	Lewisville
LAWRENCE	J. M. Stedham	Walnut Ridge	C. C. Townsend	Walnut Ridge
LEE	W. B. Beane	Marianna	E. D. Wall	Marianna
LINCOLN	J. D. Watt	Tyro	B. F. Tarver	Star City
LITTLE RIVER	T. T. Shackelford	Foreman	W. E. Vaughan	Richmond
LOGAN	John Stewart	Booneville	A. R. Hederick	Booneville
LONOKE	John F. England	England	Henry Thibault	Scott
MADISON	J. H. Bohaman	Huntsville	L. H. Callen	Hindsville
MILLER	E. L. Beck	Texarkana	L. J. Kosminsky	Texarkana
MISSISSIPPI	A. E. Turrentine	Blytheville	E. E. Craig	Wilson
MONROE	A. H. Gilbrech	Clarendon	R. E. Thomas, Jr.	Clarendon
MONTGOMERY	W. D. Freeman	Mt. Ida	L. S. Kennedy	Mount Ida
NEVADA	J. T. Sandlin	Emmet	G. A. Buchanan	Prescott
OUACHITA	J. W. Meek	Camden	C. S. Early	Camden
PERRY	W. L. Reiff	Perryville	R. A. Jones	Houston
PHILLIPS	J. W. Bean	Marvell	A. W. Cox	Helena
POLK	Ben H. Hawkins	Mena	C. C. Gunnels	Mena
POINSETT	R. E. Yarbrough	Harrisburg	J. C. Davis	Harrisburg
POPE	J. W. Powell	Russellville	L. D. Berryman	Russellville
PRAIRIE	W. W. Hipolite	DeVall's Bluff	Jas. Parker	DeVall's Bluff
PULASKI	J. B. Dooley	Little Rock	S. M. Gates	Little Rock
RANDOLPH	J. J. Johnson	Biggers	W. E. Hamil	Pocahontas
SALINE	D. Gann	Benton	J. W. Melton	Slocomb
SEARCY			E. W. Wood	Marshall
SEBASTIAN	S. J. Ozment	Fort Smith	E. L. Lindsey	Fort Smith
SEVIER	E. W. Hopson	Locksburg	A. J. Clingan	Lockeshurg
ST. FRANCIS	J. C. Reynolds	Colt	D. A. Pelton	Forrest City
UNION	J. G. Mitchell	El Dorado	Foster Jarrell	Huttig
WASHINGTON	J. E. Martin	Springdale	H. H. Towler	Fayetteville
WHITE	T. S. Tapscott	Searcy	J. L. Jones	Searcy
WOODRUFF	E. F. Brewer	Augusta	C. E. Dungan	Augusta
YELL	W. E. Ballinger	Plainview	J. R. Linzy	Dardanelle

MEMBERS OF COMPONENT SOCIETIES.

Notify the Secretary at once if errors in Names or Addresses are Discovered.

Arkansas County.

Bunn, A. D. Humphrey
 Fowler, Arthur Humphrey
 Hill, B. L. Stuttgart
 John, M. C. Stuttgart
 Moorhead, W. H. Stuttgart
 Morpew, L. H. Stuttgart
 Sillin, C. W. Stuttgart
 Swindler, E. B. Stuttgart
 Lumsden, C. A. DeWitt
 Park, C. E. DeWitt
 Rasco, C. W. DeWitt
 Winkler, E. H. DeWitt
 Lowe, A. M. Gillett
 Lowe, W. W. Gillett
 Rives, C. T. Almyra
 Derrick, H. C. DeLuce
 Dickens, Homer St. Charles

Ashley County.

Cone, A. E. Portland
 Cockersham, H. E. Portland
 Sparks, J. E. Crossett
 Setzler, G. H. Crossett
 Wilks, E. H. Crossett
 Vines, C. L. Crossett
 Hawkins, M. C. Parkdale
 Williams, R. G. Parkdale
 George, B. F. Hamburg
 Norman, W. S. Hamburg
 Simpson, J. W. Hamburg
 Simpson, J. C. Hamburg
 Scott, E. M. Hamburg
 Erwin, E. D. White
 Shipman, W. H. Montrose
 Wood, J. T. Fountain Hill

Baxter County.

Morrow, J. J. Cotter
 H pp, J. A. Buford

Benton County.

Buffington, G. H. Decatur
 Eubanks, F. G. Decatur
 Cargile, Charles H. Bentonville
 Henry, J. T. Bentonville
 Hurley, C. E. Bentonville
 Hurley, Thomas W. Bentonville
 Huffman, K. B. Bentonville
 Lindsey, J. H. Bentonville
 Moody, W. C. Bentonville
 Pickens, W. A. Bentonville
 Beard, J. H. Siloam Springs
 Clegg, J. T. Siloam Springs
 Gullledge, J. T. Siloam Springs
 Duckworth, F. M. Siloam Springs
 Sexton, J. Z. Siloam Springs
 Smiley, J. L. Siloam Springs
 Webster, John W. Siloam Springs
 Fergus, J. A. Rogers
 Hodges, T. E. Rogers
 McHenry, W. A. Rogers
 Moore, W. A. Rogers
 Pickens, E. E. Rogers
 Rice, R. S. Rogers
 McKelvey, A. J. Rogers
 Rice, C. A. Rogers
 Zugg, C. L. Rogers
 Ramsey, T. C. Gentry
 Wilks, F. M. Gentry
 Wilson, C. S. Gentry
 Barnett, J. Z. Sulphur Springs
 Clemmer, J. L. Springtown
 Highfill, E. J. Cave Springs
 Rice, T. M. Avoca
 Hodges, Guy Garfield
 Green, L. O. Pea Ridge
 Harrison, A. J. Lowell
 Hughes, G. A. Gravett
 Horton, C. W. Hiwassa
 Powell, J. T. Maysville

Boone County.

Evans, D. E. Harrison
 Fowler, J. H. Harrison
 Hathcock, A. M. Harrison
 Johnson, J. J. Harrison
 Kirby, F. B. Harrison
 Kirby, L. Harrison
 Routh, Charles M. Harrison
 Sims, J. L. Harrison
 Baines, Swartz Bergman
 Albright, Sam Bellefonte
 Bolinger, John Lead Hill
 Butt, W. A. Omaha
 McCurry, D. K. Alpena Pass
 Routh, H. L. Batavia

Bradley County.

Barnett, S. H. Warren
 Ellis, W. S. Warren
 Pike, W. T. Warren
 Ganaway, C. E. Warren
 Hartsell, W. L. Warren
 Martin, C. N. Warren
 Martin, R. Warren
 Wilson, George Hermitage
 Wommack, W. E. Hermitage
 Carrouth, O. A. Little Rock
 Crow, M. T. Ingalls

Calhoun County.

Rhine, T. E. Thornton
 Wilson, D. F. Hampton

Carroll County.

Bolton, J. Fred. Eureka Springs
 Ezell, W. D. Eureka Springs
 Floyd, R. G. Eureka Springs
 Huntington, R. H. Eureka Springs
 Jordan, J. D. Eureka Springs
 John, J. F. Eureka Springs
 Phillips, J. E. Eureka Springs
 Face, Henry Eureka Springs
 George, W. P. Berryville
 George, Charles A. Berryville
 Poyner, I. M. Berryville
 Harvey, W. A. Berryville
 Donaldson, C. W. Green Forest
 Morrow, F. R. Green Forest
 Poyner, E. E. Green Forest
 Clare, M. W. San Diego, Cal.
 Price, C. T. Honey Grove, Texas
 Poyner, J. W. Osage
 Reynolds, J. R. Grand View
 Sisco, C. F. Osage

Chicot County.

Anderson, A. G. Eudora
 Douglass, S. W. Eudora
 Parr, H. H. Eudora
 Barlow, E. E. Dermott
 Curtis, J. F. Lake Village
 Henry, R. N. Lake Village
 McGehee, E. P. Lake Village
 Norton, M. M. Lake Village
 Easterling, W. W. Chicot
 Clark, P. C. Sunny Side
 Ridgion, F. E. Reedland
 McGehee, E. C. Halley

Clay County.

Latimer, N. J. Corning
 Nelson, F. L. Corning
 Simpson, A. R. Corning
 Newkirk, C. H. Datto
 Richardson, M. C. Datto
 Cunning, I. H. Knobel
 Hiller, J. P. Pollard
 Stewart, O. R. Palatka
 Hughey, M. C. Rector
 Lunt, J. P. Leonard
 Lynch, Richard Success
 Waddle, M. V. B. Success

Clark County.

Bell, J. H. Arkadelphia
 Daly, J. M. Arkadelphia
 Doane, S. A. Arkadelphia
 Moore, W. M. Arkadelphia
 Rowland, W. T. Arkadelphia
 Townsend, N. R. Arkadelphia
 Wallis, J. C. Arkadelphia
 Cuffman, J. H. Gurdon
 Kirby, D. W. Gurdon
 McLain, J. T. Gurdon
 Doughty, D. A. Alpine
 McLain, C. W. Gurdon

Clebune County.

Richardson, F. G. Heber Springs
 Ruff, Horace E. Heber Springs
 Mathews, J. T. Heber Springs
 Hall, H. J. Higden
 Kessinger, J. S. Quitman

Cleveland County.

Hamilton, A. J. Rison
 Sadler, H. D. Rison
 Johnson, S. C. Kingsland
 Leila, C. Kingsland
 Carter, J. D. Staves
 Hartsell, R. J. Annover
 Wilson, H. O. Randall

Columbia County.

Baker, J. J. Magnolia
 Hunt, W. H. Magnolia
 Jack, J. J. Magnolia
 Longino, H. A. Magnolia
 Smith, P. M. Magnolia
 Stevens, C. D. Magnolia
 Stevenson, W. A. Magnolia
 Hill, C. H. Village
 McWilliams, T. Village
 Twitty, Walter Emerson
 Vaughn, J. T. Emerson
 Walker, J. C. Emerson
 Mullins, G. E. Emerson
 McDonald, A. J. Springfield, La.
 Sauter, T. E. McNeil
 Sanders, G. P. McNeil
 Milner, C. D. Milner
 Cooksie, W. P. Atlanta

Conway County.

Clark, C. D. Morrilton
 Logan, B. C. Morrilton
 Presley, W. L. Morrilton
 Halbrook, J. Center Ridge
 Jackson, J. H. Center Ridge
 Coley, J. H. Cleveland
 Goatcher, A. L. Flumerville
 Cole, J. H. Springfield

Craighead County.

Altman, J. T. Jonesboro
 Hale, W. S. Jonesboro
 Lutterloh, C. M. Jonesboro
 Lutterloh, P. W. Jonesboro
 Jackson, W. W. Jonesboro
 Ramsey, J. W. Jonesboro
 Ratcliff, R. W. Jonesboro
 Stroud, H. A. Jonesboro
 Willett, R. H. Jonesboro
 Horn, L. D. Gilkerson
 Harrison, B. L. Truman
 Armour, C. H. Bono
 Walker, B. F. Nettleton
 Tillotson, C. E. Lake City

Crawford County.

Bennett, Burrell L. Van Buren
 Blakemore, J. E. Van Buren
 Bourland, O. M. Van Buren
 Dibrell, M. S. Van Buren
 Kirkland, Samuel W. Van Buren
 Lucas, Giles Van Buren
 Parchman, W. L. Van Buren
 Reeves, W. R. Alma
 Sharp, J. C. Alma
 Galloway, Q. R. Alma
 Haney, E. L. Dyer
 Mitchell, J. D. Uniontown
 Wigley, J. A. Mulberry

Cross County.

McKie, W. H. Wynne
 Longest, R. Wynne
 Stewart, T. J. Wynne
 Griffin, J. L. Vandalia

Crittenden County.

Hicks, W. P. Earle
 Mathews, J. H. Earle
 Hare, T. S. Crawfordville
 Parker, A. C. Clarksdale
 McVay, L. C. Marion

Dallas County.

Atkinson, H. H. Fordyce
 Harrison, F. E. Fordyce
 Hope, O. W. Fordyce
 March, C. J. Fordyce
 Kelly, M. D. Carthage
 Wozencraft, W. L. Holly Springs
 Taylor, Marvin Pine Grove

Desha County.

Tom, A. Dumas
 Price, C. C. Dumas
 White, J. A. Dumas
 Smith, H. T. McGehee
 Stuart, J. M. McGehee
 Smith, C. P. Arkansas City
 McCaumon, Vernon Arkansas City

Drew County.

Brown, W. A. Monticello
 Collins, A. S. J. Monticello
 Corrigan, M. B. Monticello
 Cotham, E. R. Monticello
 Kimbro, S. O. Monticello

Duckworth, F. L. Monticello
Kimbro, W. C. Monticello
Pope, M. Y. Monticello
Castile, H. Winchester
Cheairs, J. T. Tillar
Cheairs, D. T. Tillar
Stanley, A. C. Tillar
Linsbee, A. M. Collins
Smith, R. N. Collins

Faulkner County.

Brown, George S. Conway
Cureton, H. E. Conway
Dickerson, C. H. Conway
Greeson, W. R. Conway
Huddleston, G. D. Conway
McCollum, I. N. Conway
McMahan, J. E. Conway
Muse, J. M. Conway
Snoddy, T. B. Conway
Westerfield, J. S. Conway
Henderson, G. L. Greenbrier
DeJarnett, J. W. Guy
Mabray, Thomas M. Holland

Franklin County.

Blackburn, E. W. Ozark
Douglass, Thomas Ozark
Williams, H. F. Ozark
Warren, G. D. Ozark
Blakely, T. B. Coal Hill
Porter, W. C. Coal Hill
Post, J. L. Altus
Blakely, J. F. Alix
Gibbons, W. H. Webb City
Jacobs, L. I. Hunt
Downey, R. L. Cecil
Weaver, R. E. Vesta
Hodges, E. F. Branch
Jones, W. E. Paris
Ramho, W. W. Alston
Wear, W. M. Paris
Benefield, C. E. Charleston
Bowen, A. L. Cass

Grant County.

Kelly, O. R. Sheridan
Butler, J. L. Sheridan
Jones, J. E. Sheridan
Shaw, J. B. Sheridan
Young, J. K. Hot Springs
Whitehead, S. H. Ain
Caple, C. B. Grapevine

Greene County.

Baker, E. S. Paragould
Bridges, G. T. Paragould
Dickson, H. N. Paragould
Dickson, P. L. Paragould
Haley, R. J. Paragould
Hopkins, G. T. Paragould
Hardesty, C. A. Paragould
McKenzie, J. G. Paragould
Owens, W. R. Paragould
Scott, F. M. Paragould
Wilson, Olive Paragould
Bradsher, R. E. Marmaduke
Cottren, Thad Walcott
Majors, W. W. Walcott
Cohn, George Piggott
Ellington, W. E. Brighton
Graham, M. C. Gainsville
Lamb, Jones Beech Grove

Hempstead County.

B'Shers, H. L. Fulton
Cannon, J. E. Hope
Carrigan, F. B. Hope
Gillespie, L. J. Hope
Farrow, W. D. Hope
Garrett, H. J. F. Hope
Hayhurst, J. O. Hope
Kelly, J. L. Hope
McLond, E. G. Hope
Russell, M. V. Hope
Smith, Don Hope
Sauer, W. F. Hope
Weaver, J. H. Hope
Waddle, J. S. Hope
Garner, T. J. Washington
Robbins, W. F. Ozan
Autry, J. B. Columbus

Hot Spring County.

Bramlitt, E. T. Malvern
Hodges, W. G. Malvern
Hardy, H. Malvern
McCray, E. H. Malvern
Phillips, R. Y. Malvern
Williams, J. M. Malvern
Cox, J. A. Donaldson
Blakely, M. M. Social Hill

Garland County.

Barry, L. H. Hot Springs
Biggs, Orvis Hot Springs
Bush, J. W. Hot Springs
Burton, O. H. Hot Springs
Connell, W. H. Hot Springs
Cox, W. E. Hot Springs
Chesnutt, James H. Hot Springs
Collings, H. P. Hot Springs
Collings, S. P. Hot Springs
Cook, A. H. Hot Springs
Dake, C. Hot Springs
Dake, W. Hot Springs
Deadrick, W. H. Hot Springs
Davis, R. G. Hot Springs
DeWoody, L. C. Hot Springs
Drennen, C. Travis. Hot Springs
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Ellis, L. R. Hot Springs
Fewkes, J. W. Hot Springs
Grey, D. A. Hot Springs
Garnett, A. S. Hot Springs
Harrell, M. L. Hot Springs
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Holland, E. D. Hot Springs
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Jelks, F. W. Hot Springs
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Laws, M. V. Hot Springs
Lanning, W. B. Hot Springs
Livingston, J. J. Hot Springs
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Mobbs, B. Hot Springs
Mount, M. F. Hot Springs
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McClendon, J. W. Hot Springs
Purdum, E. A. Hot Springs
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Rider, E. B. Hot Springs
Robertson, J. A. Hot Springs
Rowland, J. F. Hot Springs
Sanders, T. E. Hot Springs
Shaw, A. D. Hot Springs
Shaw, J. B. Hot Springs
Short, Z. N. Hot Springs
Snyder, W. L. Hot Springs
Steele, S. B. Hot Springs
Smith, J. W. Hot Springs
Smith, W. K. Hot Springs
Strachan, J. B. Hot Springs
Simpson, R. A. Hot Springs
Strachan, H. M. Hot Springs
Thompson, Lloyd Hot Springs
Thompson, M. G. Hot Springs
Thompson, M. G., Jr. Hot Springs
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Vaughan, P. T. Hot Springs
Vines, F. P. Hot Springs
Williams, A. U. Hot Springs
Winegar, E. F. Hot Springs
Williams, F. M. Hot Springs
Weil, S. D. Hot Springs
Wood, J. S. Hot Springs
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Gibson, W. M. Nashville
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Dorr, R. C. Batesville
Drennen, S. A. Batesville
Grav, F. A. Batesville
Hinkle, C. G. Batesville
Johnson, O. J. T. Batesville
Kennerley, J. H. Batesville
Lawrence, W. B. Batesville
Evans, A. A. Newark
Moore, William F. Newark
Pascoe, V. L. Newark
Rodman, T. N. Newark
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Long, W. J. Sulphur Rock
Robertson, S. N. Sulphur Rock
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Bone, O. L. Cushman
Brewer, J. McDowell. Mountain View
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Watson, E. L. Newport
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Scales, J. W. Pine Bluff
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Smith, J. S. Pine Bluff
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Hunt, E. H. Clarksville
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 May, W. S. Little Rock
 Meek, E. Little Rock
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No. 4

Original Articles.

ADIPOSIS DOLOROSA.*

By Chas. H. Cargile, M. D.,
Bentonville.

This paper is not intended as an exhaustive discussion of Adiposis Dolorosa, but rather to relate cases observed by the writer, as well as to call attention to what he believes to be a fact, that is, that the malady, instead of being very rare, as is usually believed, is indeed fairly common.

During the nearly seven years that have elapsed since he saw the first of this series of cases, he has seen six others. This, notwithstanding the fact that during the preceding thirty years he had not recognized one. His only way of accounting for this discrepancy is by believing that he had seen others, but had not recognized them. During this period his interest in the disease caused him to inquire of many physicians, not one of whom had observed a case.

In a personal communication in August, 1913, Dr. Dereum, who first recognized and studied the disease, and established it as a pathologic entity, says, "You are quite right, adiposis dolorosa is by no means a rare disease. It is mistaken frequently because it is constantly overlooked." In a later one, March, 1915, he says, "You are quite right in your inference that the disease is not as rare as it is supposed to be. It is merely that the symptom group is not recognized."

HISTORY.—At a meeting of the American Neurological Association in 1888, Dereum reported an anomalous case, and as it was not susceptible of classification by any symptom complex then known, the description was prefaced by the title, "A subcutaneous, connective tissue dystrophy of the arms and back,

associated with symptoms resembling myxedema."

F. P. Henry reported a similar case in March, 1891, and the third was by Dereum in 1892, at the meeting of the American Neurological Association.

The foregoing briefly covers the history of this malady, frequently called "Dereum's Disease," and for which Dereum coined the name "Adiposis Dolorosa," to the time when the medical profession accepted his contention that the clinical syndrome was that of a pathological entity, entirely distinct and apart from other conditions of adiposity and obesity with which it had been confused.

About fifty cases were reported during the next five years, since which time the number has steadily increased. The literature is very scant, many pretentious works failing to mention it, and others giving it only a passing notice, current literature supplying nearly all that is available.

ETIOLOGY.—Not much is known of the etiology. However, all investigators agree in attributing the malady, in part at least, to changes in the thyroid gland, which is proved by the therapeutic effect of thyroid extract. The hypophysis, too, is causative, but in a less degree.

The ovaries are not without etiologic influence, as shown by the fact that the disease usually develops about the menopause, as well as by their having been found sclerotic in three of the few autopsies reported. This is somewhat confirmed by Case II of this series, in which the disease developed in a single woman of about twenty-three, on whom oophorectomy had been performed, only a small part of one ovary having been left.

Alcohol, syphilis and trauma are regarded by some as contributory. Heredity should possibly be included. Carroll relates an instance in which mother and daughter, and Cheever, one in which father, son and daughter were afflicted. There have been reported

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

others in which two or more occurred in the same family. The parents of Case VI were first cousins.

MORBID ANATOMY AND CLINICAL PHENOMENA.—The most striking characteristic of adiposis dolorosa is the presence of painful, subcutaneous, fatty tumors of varying sizes. Vitas's classification of these as "Nodular, circumscribed, diffuse, and generalized diffuse," is usually accepted. They vary in size from small ones, even nodules, to large masses weighing many pounds, as in Case I of this series. Likewise they vary in number from one to many.

Any part of the body, except the scalp, may be the seat of the disease. The face, the hands and the feet are rarely affected. Case V of this series is one of the very few reported in which the feet are involved. In Case II the pelvis was literally full of a painful and tender mass that was believed to be identical with the characteristic tumors elsewhere. The enlargements differ from obesity in that they, except the generalized diffuse form, are discrete and circumscribed, not continuous with the surrounding tissue. By reason of this characteristic they are movable, and when large, pendulous.

In the generalized diffuse form, a tumor proper may not exist, but instead a general hyperplasia of the fatty subcutaneous tissue, as in Case VII. Autopsies have revealed interstitial neuritis in the tumefactions, which probably accounts for the pain.

Previous to 1909, eight autopsies had been made, seven of which showed histologic changes in the thyroid and five in the pituitary. Some of those in the thyroid lacked uniformity, in that both atrophic and hypertrophic tissues were found in the same gland. The hypertrophy is supposed to have been compensatory and secondary to the atrophy. The thyroid as a whole is frequently more or less atrophied. One case in which the testicle was more or less atrophied is recorded. Epilepsy has complicated several cases.

The skin is dry, and in a small per cent of cases the seat of blebs and bullae, and is easily bruised. Dercum thinks the ecchymoses sometimes appear without trauma. Vaso-motor phenomena are frequent. The field of vision is narrowed in some cases. Rarely, painful fatty tumors have been found in the knee joints. The fatty masses are the seats of pains, burning, tenderness and stinging, as

well as of various subjective sensations, namely, numbness, cold, twisting and formication. All of these rarely precede the development of the tumor.

While more or less pain and tenderness are almost constant, the neuralgia-like pains, the burning and stinging come in crises which recur after intervals of days or weeks. These are of varying intensity in different individuals. Usually their severity increases with the morbidity, which in turn grows with the frequency and number of recurrences, and may become continuous in long-established cases. Dercum has observed enlargement in the tumefactions during the attacks, and says it does not always recede during intervals. Labor aggravates the suffering.

Asthenia and myasthenia are usual concomitants. Many and varied are the neurasthenic and psychic phenomena, among which may be mentioned loss of memory, irascibility, delusions as to being persecuted, apathy, dullness, slowness of speech, melancholia, and even dementia.

PROGNOSIS.—The prognosis as to recovery is not good, although a few cases have been reported as cured. Many live a long while, suffering more or less, and die of other diseases, especially of infections, to which they seem unusually susceptible.

Fortunately, only a few are afflicted with the disease in its worst form. These, tormented by continuous and excruciating pain, become bedridden, and finally die of asthenia, sleeplessness, pain, and the effects of large quantities of anodynes.

TREATMENT.—Treatment with thyroid extract, though rarely curative, is the most efficient. Indeed, little else has been found beneficial. For relief of pain, coal-tar preparations, opiates and other anodynes may become necessary. On account of the prolonged course of the disease, they should be used very cautiously. Hot applications and rest in bed are helpful.

Unlike obesity, the fatty tumors of Dercum's disease are not influenced by abstaining from fat-producing articles of food. Because of the asthenia that is usually conspicuous, sustaining food is indicated.

Not much has been accomplished by surgery, recurrences having usually followed excision of the masses. However, Dercum and others think it worthy of further trial.

REPORT OF CASES.

CASE I.—Mrs. J. M., white, native of Ireland, resident of Missouri, age sixty-six, consulted the writer September 8, 1908.

Two years before, she had fallen from a wagon, striking the left side of her head, left shoulder and knee. There was a slight depression about the third convolution on the left side. There was defective speech, which she and her husband said had begun along with paralysis of the left arm and leg, about two weeks after the fall. The correctness of this statement, that is, as to the time of onset, is doubted, because it does not accord with what is usual and reasonable, and because some of their other statements were not lucid. Now, with better knowledge of the disease afflicting her, and its effect on her mind, it is easy to account for her errors. His could easily be attributed to evident senility. The paralysis of the leg and arm was not very noticeable at this time. The first view of her was that of a decrepit old woman, very stooped, walking with cane in each hand, and supported by two assistants, and whose form suggested an enormous abdominal tumor. This appearance was found on examination to be due to a large fatty tumor of the abdominal wall, reaching well to the middle of her thighs, and to enlargement of her breasts which reached to the same level. Numerous other fatty growths were distributed over her body and limbs. She complained of so much pain, burning and tenderness, even crying out when the masses were manipulated, that the reporter, in his ignorance, thought they were simple lipomata, and that she was feigning, dismissed her summarily, without completing the notes he had begun. When later he desired an illustration of the case to incorporate in this report, he was informed that she had died.

CASE II.—Miss N., white, resident of Oklahoma, age twenty-three, single; had never been healthy, but nothing definite could be learned except that when about thirteen she began suffering with pelvic pains, which had continued except during short and irregular intervals, but somewhat less after onset of menstruation at eighteen, which has ever been scant and has rarely recurred in less than several months.

At about nineteen she was operated on, part of the appendages being removed, and adhe-

sions severed. Her health growing worse, after three years, another operation was done by another surgeon who claimed that he had removed the rest of the adnexae, except a small part of one ovary, and had done a ventral fixation. He also claimed to have found and released adhesions.

She was first seen October 3, 1908, a few weeks after the second operation. She was very neurasthenic, pale and asthenic, and continuing in bed much of the time. Anorexia, indigestion and constipation were marked. She continued to complain of the pelvic pains and soreness, on account of which she desired another operation, which was not done because not indicated. The thyroid gland was not palpable, temperature was slightly subnormal, skin dryer than formerly, pulse frequent, hair normal. The several affected areas, involving parts of her body and limbs, were in marked contrast to other parts which were very emaciated. These areas were very conspicuous about her clavicles, shoulders, epigastrium, hips and upper parts of her thighs. This condition and the absence of the thyroid suggested myxedema, but as it was unlike it, in that the enlargements were localized, tender, and the seat of pains, burning and tenderness. Investigation of this syndrome resulted in the diagnosis of adiposis dolorosa, a malady of which the writer had absolutely no knowledge. Immediately the analogy to Case I became plain, and with much chagrin he realized the error he had committed in improperly diagnosing it, and that he had missed an opportunity to study and fully record a very interesting case of adiposis dolorosa.

Bimanual examination showed uterus anchored high and pelvis literally full of a mass that felt quite like the several subcutaneous, fatty tumors, and like them was the seat of pain and tenderness. Indeed, he believes it was a part of the same malady. This view is enhanced by several circumstances, the discussion of which would go beyond the limits of this paper. Under thyroid treatment the swellings and pain improved, only to recur when discontinued. After a few weeks' observation she returned to Oklahoma. By recent correspondence it has been learned that she has had several operations, but without relief, the tumors being larger, more painful, and her general health worse.

CASE III.—Mrs. S., American, white, age sixty-seven; mother of one child; menopause

at fifty-four. Family history good, except one brother died of tuberculosis. Barring the conditions to be described, her health has ever been quite good. She was seen first on the 10th of June, 1911, complaining of pain and soreness about the right scapula, which had begun several years before, on account of which she suffered when she leaned back in a chair. Examination revealed a painful subcutaneous, fatty tumor of about three inches in diameter. It was the seat of spontaneous pains, burning, formication, and of soreness when manipulated. Thyroid extract was prescribed, but not taken.

She was examined again the 24th of April, 1915, for the purpose of completing this report. During the almost four years that have elapsed since the former date, her general health has continued good. Neither in size, nor in subjective symptoms, has the above described tumor changed. On both hips fatty enlargements have come since the former examination. The one on the right side is characteristic of *adiposis dolorosa*, in that it is the seat of spontaneous pains, burning and formication, while the one on the left side, its physical counterpart, is void of subjective symptoms. Her left knee is occasionally the seat of some pain and swelling, which she calls rheumatism. She has not observed that these attacks are coincident with the paroxysms in the tumors. Her flesh bruises easily. The right lobe of the thyroid cannot be felt; the left is small.

CASE IV.—While visiting a patient in the country, the writer was incidentally consulted by a lady living in the same neighborhood who complained of pain and tenderness beneath the left scapula. Examination revealed a painful, fatty mass, two or three inches in diameter, the exact counterpart of Case III. He was sure of his diagnosis, *adiposis dolorosa*, but thought no more about it, and now cannot remember the identity of the lady, hence cannot report further observation.

CASE V.—Mrs. C. J. G., American, white, age forty-seven, mother of three children, native and resident of Arkansas. Was first seen July 25, 1913. She complained of a soft, painful tumor just below the left scapula, which had been tentatively diagnosed sarcoma, and for which an operation had been advised. Besides the tumor, several symptoms which she had first noticed, were very marked. These

were sleeplessness, melancholia, asthenia and myasthenia, lessened physical and mental alertness, impairment of the sight, accommodation and knee-jerk, and formication, and feeling of twisting and tenderness in the tumor. It was diagnosed *adiposis dolorosa*, and thyroid extract was prescribed.

Patient was again examined May 3, after the lapse of twenty-two months. Menstruation had ceased about one year after onset of the disease. Thyroid treatment had been used except at intervals when she had been forced to leave it off because of its unpleasant physiologic effects. This treatment had been beneficial, as shown by the improvement of the subjective symptoms and decrease in the size of the tumor. But it had not prevented the forming of new tumors on the lower limbs and feet during the intervals when the treatment had been suspended. These tumors, like the original one, were influenced by thyroid treatment.

CASE VI.—Mrs. J. A. C., of Centerton, Ark.; white, age fifty-five, mother of four children. Family history negative except for the death of two brothers from tuberculosis. Had had rheumatism at forty. Menstruation had ceased the preceding year. Hot flashes continued. Pale and asthenic. Complains of pain and soreness in what she thinks is an intra-abdominal tumor, which she insists should be removed by operation. This, notwithstanding that while living in another state, several years ago, she was operated on, but it could not be found. However, a calculus was removed from her gall-bladder, resulting in relief from some epigastric symptoms. It can be easily lifted from the fascia and muscle beneath, and is the seat of pain and tenderness, of which she complains very much. These subjective symptoms, true to the characteristics of the malady, subside during intervals, to be followed by crises of intense suffering. Overlying each kidney is a similar but smaller tumor. These have been comparatively free from pain and other subjective symptoms for about a year. However, they had previously caused much suffering, notably one crisis of several days, during which she was tortured with pain which stubbornly resisted various remedies. Thyroid extract was prescribed, but not taken.

She was not seen again until April 14, 1915, when she was again examined. Her general

health was found better, the smaller tumors were unchanged, and rarely the seat of pain. Not so of the one in front, which was larger and the cause of so much pain that she continues to insist on an operation.

CASE VII.—Mrs. W., white, age about thirty-eight, native and resident of Arkansas; was seen April 14, 1915. She stated that about a year before, she had begun to grow fat, and at the same time realized that her health was progressively declining. She experienced increasing pain and soreness in the tissues. Although the enlargement is diffuse, it is easily distinguished from myxoedema and obesity by the characteristic soreness and pain. It belongs to Vitaut's fourth classification, "Generalized diffuse form," differing from the other cases reported, in that they are localized and discrete. Menstruation is irregular, one thyroid is not palpable, the other is small. Thyroid extract was prescribed. If the result be not good, pituitrin will be added.

After several weeks of thyroid treatment, her husband writes, reporting great improvement in all respects, even to the loss of many pounds, which was a part of the malady, especially of this the generalized diffuse form, with which she was afflicted.

Of the seven cases reported, one came from Oklahoma, one from Missouri, two from central Arkansas, and three from northwest Arkansas.

THE ENDOTOXIN REACTION.*

By E. H. Martin, M. D.,
Hot Springs.

By the term endotoxin reaction is meant the constitutional disturbance which may follow the freeing of endotoxins liberated by the death of a number of micro-organisms. All micro-organisms seem to release endotoxins when they are killed or have completed their normal life cycle.

The pain and fever in typhoid or diphtheria or erysipelas being caused by the continuous normal death rate of the multiplying organisms; the sudden exacerbation of malaria being due to the sporulation of a crop of plasmodia; the vomiting and bowel movements following ptomain poisoning being due to en-

dotoxins released by colonies of putrefactive germs, which poisons are retained in the tissues of the substance occupied by these germs and later eaten by the individual, the fever and bowel movements following the administration of a dose of salvarsan or neo-salvarsan to a person suffering from syphilis or pellagra is likewise due to the endotoxins released from the killed organisms, provided the drug has been properly prepared and administered.

The effect of all toxins or endotoxins, it will be seen, are very much alike, no matter from what organism obtained, but differ sufficiently to frequently give diagnostic clinical symptoms.

What symptoms constitute a reaction? I will quote from a former paper:

“The reaction from all toxins have points in common, be they endotoxins of syphilis or pellagra; malarial toxins causing malarial paroxysm, streptococcic as in erysipelas, for instance, or staphylococcic as in ordinary pus cases. These symptoms are: chill or chilly sensations, fever, nausea and vomiting, diarrhea, profuse sweats, headache and backache, pains, various nervous symptoms, etc. No one toxine causes all of these symptoms and any toxine may act differently in different cases and individuals. But each toxine, like other chemical poison, has a more or less constant and individual effect, and we as clinicians are thereby enabled to frequently make bedside diagnoses from such symptoms alone.

For instance, you are called to see a patient who has had a sudden rise of fever, with or without a preceding chill; the fever goes to 102 or 104 degrees and is accompanied by vomiting of bile, or at least by nausea, and subsides in a few hours with a fairly heavy sweat. You feel quite sure that a crop of sporulating malarial organisms has turned loose a dose of malarial endotoxins in that patient and you have witnessed the “reaction,” so to speak.

If the patient complains of chilliness and fever at the same time and much distressing aching, we suspect streptococcic toxins, probably from infection of the tonsils, while if to these symptoms be added a severe chill and explosive vomiting, one instinctively thinks of the toxins of the streptococci causing erysipelas. If the patient has rigor, fever and heavy sweat, followed by rigor, fever and sweat, and this repeatedly, we know that the

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

toxines of pus germs are responsible; while if he has light daily fevers and heavy sweats by night, we do not have to be told that a mixed lot of toxines are being absorbed from some breaking down focus in his lungs. If called at 1 o'clock in the morning, the physician finds a patient vomiting and purging, he at once remembers the toxines called ptomaines, generated in dead tissues, and asks what the patient has eaten for the last two meals.

I mention these facts at the risk of boring you, to show that I am claiming nothing new or unusual when insisting that the toxines liberated by the sudden destruction of a large number of syphilitic or pellagra-causing organisms, analogous to the sporulating of a whole crop of malarial plasmodia, cause a distinct and different reaction or set of symptoms for each of these diseases.

Not only can a diagnosis be made in most cases of syphilis or pellagra by the reaction following the administration of salvarsan, but a differential diagnosis can be made between the two diseases.

The symptoms constituting a reaction in either disease are the same, but vary consistently. They are two in number—fever and bowel movements, with varying degrees of headache and backache from the fever, and at times profuse emesis, which, however, may in some instances be a drug effect, which the fever and bowel movements never are. The presence of either of these symptoms constitutes a reaction. Any disturbance of temperature or any bowel movements of a loose character, especially if accompanied by much gas formation in the bowels, are the symptoms, either of which constitutes a reaction if such symptoms cannot be otherwise accounted for.

It may be argued that the mere introduction of the drug, or of the warm solution even, into the blood of the patient might cause a fractional rise of fever; but the fact is that such is not the case, as is proven by giving a sufficient number of doses and seeing this disturbance of the temperature grow less and disappear.

Some patients, very susceptible to nausea, especially nervous women and cases of cerebral syphilis, may report excessive nausea prolonged beyond the ordinary period of the syphilitic reaction; this is doubtless directly from the presence of the drug. Such instances are so different from the bilious eme-

sis due to a reaction that we can readily differentiate them. Nausea and vomiting from other causes must also be eliminated.

One factor which may confuse us in cases also happening to have malarial poisoning is the unexpected occurrence of a malarial paroxysm soon after the administration of salvarsan. This drug has no effect on the asexual form of the plasmodia, reports to the contrary notwithstanding, and this fact I have had abundant evidence of, both clinically and by finding the undisturbed plasmodia in the blood after repeated doses had been given. It does, however, affect the sexual form and may cause a malarial paroxysm one or two days after its administration.

In considering the value of bowel movements we must eliminate the effects of recently administered purgatives, and they must be characteristic bowel movements.

It may be claimed that the drug itself produces the bowel movements, but that this is not the case is proven by the fact that they do not occur constantly, and by the more important fact that they do not occur after last doses when sufficient treatment has been given.

Any patient having had even the slightest disturbance in temperature has had a positive reaction.

Any patient having emesis not otherwise accounted for has probably had a positive reaction.

Any patient having one or more characteristic bowel movements has had a positive reaction.

Most cases of secondary syphilis will have all three or at least two of these symptoms; in many cases of tertiary syphilis we will have only the bowel movements, but we may also have a slight rise of temperature, or all three.

The diagnostic feature of the syphilitic reaction, except in cerebrospinal cases, as differing from that in pellagra, is its duration. In cases of syphilis the true reaction generally begins in two hours and consists of a single paroxysm which has fully subsided in from eight to twelve hours, the patient usually coming back in a normal condition to report same the next morning. However, in cases of tabes and other specific cerebral or spinal conditions the reactions may be prolonged or delayed for the reasons mentioned later in discussing the reaction in cases of pellagra.

The reaction after salvarsan in pellagra or in cerebrospinal syphilis is not a single paroxysm lasting a part of one day, as in ordinary syphilis, but lasts two or three days.

This is in accord, it seems to me, with the almost certain pathology of the disease. Pellagra is a nervous disease—*i. e.*, it is a disease caused by the colonizing of some unknown organisms, probably a spirochete or a spirillum, in the brain and spinal cord. These organisms also evidently exist in the circulating blood during an exacerbation of the disease. We know that it is a disease which may continue for many years if the patient is not killed by an exacerbation, and that many such recrudescences may occur in the lifetime of a patient.

But all of the years of a recurring case, the mother colonies from which these outbreaks occur, are presumably located in the nervous system. All of the clinical symptoms go to prove this; the symmetrical skin lesions are undoubted tropho-neuroses of central origin, the increased reflexes, the double vision, the vertigo, the disturbed mentality, the insanity in some cases, all prove it. The gastro-intestinal lesions and the stomatitis also are tropho-neuroses of central origin, as is shown by the entire absence of ulceration or other pathological changes in the mucous membranes, except from secondary aphthous or staphylococcal infection.

Therefore, when the organisms in the circulating blood have been destroyed by preliminary small doses of salvarsan or neo-salvarsan, and full doses are given, we have a double effect. On the first day a reaction occurs from the killing of such organisms as may be accessible. On the second day many more organisms have been thrown into the circulating blood by the presence of the salvarsan and a more marked reaction may persist, as there is still salvarsan not yet eliminated. This elimination of the salvarsan proceeds so rapidly that the reaction never lasts beyond the third day, but in some cases symptoms resembling a reaction persist for several days longer. These are, however, probably due to a tendency to recrudescence of acute pellagra in such cases.

The pathological anatomic conditions are the same in tabo-paresis and pellagra. In each we have to fight an organism which has colonized in the brain or cord, or both. These colonies are placed out of the blood stream

and are not directly reached by the drug-bearing blood, hence results are at times slow. But the same results can be obtained in both pellagra and tabo-paresis by persistent treatment with salvarsan. Although the blood does not carry the drug directly to the colonies, they are sufficiently impregnated to cause unrest and a passing of organisms into accessibility.

How is this shown? By the peculiar endotoxin reaction, so different from that in secondary lues and in tertiary lues of other tissues. In secondary lues the true endotoxin reaction begins in from an hour and a half to two hours and has entirely subsided in from six to twelve hours. In cases of tabo-paresis or tabes the first day will show only a slight reaction and in some cases none, but on the second day there is a distinct reaction, usually shown only by a slight rise of fever and loose bowel movements. This often recurs on the third day, usually does so in pellagra. It would appear that enough salvarsan impregnates the colonies in the nerve tissue to cause organisms to pass slowly into circulation and to keep up a mild endotoxin reaction until the salvarsan is mostly eliminated.

I have proven by numerous doses given to cured patients and to patients who have never had syphilis, that, apart from idiosyncrasy to the drug in a few cases, a dose of salvarsan has no physiological effect on the body temperature or intestinal elimination. Therefore, we must judge that the disturbances consistently observed after its administration in the treatment of syphilis are due to endotoxins released from the killed organisms causing the disease. The endotoxins of syphilis cause a rise of temperature or characteristic bowel movements, or both. As a rule, if there are many bowel movements there is not much rise in temperature, and conversely. Nausea and emesis are probably drug effects and seem to be dependent on personal idiosyncrasy, but the change in temperature and the bowel movements are not drug effects and do not follow doses given to patients who have had sufficient treatment.

To quote from another previous paper of mine in regard to this endotoxin reaction: "Many have failed to note such reactions. I cannot understand why this is the case, unless lack of care in making observations exists, or unless mild reactions are overlooked. I

have given many intravenous doses of salvarsan, have in fact about finished my fifth thousand, and the endotoxin reaction has not been absent in a dozen instances without good reason. One who sees a thing may be able to judge its meaning better than one who does not.

There are five possible disturbances after an intravenous dose of salvarsan and four of these should not occur and should be differentiated from the endotoxin reaction when they do occur. They are:

1. The true endotoxin reaction due to the liberation of toxin from killed micro-organisms. This differs in different stages of syphilis. It cannot begin until there are organisms killed, usually begins in about an hour and a half to two hours and consists of a rise in temperature, often of only a fraction of a degree, but at times of several degrees, or one or more loose bowel movements, watery and gaseous, or of both. It subsides in from six to twelve hours unless there are protected colonies as in cerebrospinal syphilis, when it may be delayed or prolonged to the second day, owing, presumably, to the slow breaking up of colonies. When gummata are present a secondary fever from absorption, usually a rise of one degree daily, may persist between the reactions from the weekly doses. The endotoxin reaction occurs after the concentrated solutions of neo-salvarsan, .9 gm. in 10 c.c., as well as when salvarsan is used in larger solution, 250 c.c.

2. There may be a disturbance from extraneous toxins introduced with the salvarsan; this, as is well known, is usually due to using old distilled water. It can be readily recognized as it begins almost at once, always within thirty minutes after the dose has been administered. It does not occur if we use freshly distilled water and resterilize the salt solution.

3. A severe disturbance may occur, but fortunately it is rare, from disintegration of blood cells. This is characterized by one or more chills and a fever running at times to 103 to 104 degrees F. and lasting several days, and is sometimes followed by jaundice from free hemoglobin. This occurrence may be due to idiosyncrasy. It is also sometimes seen after intravenous doses of nitrate of silver and colloidal copper. But in some instances the cause may be the use of pure distilled

water instead of salt solution in making the salvarsan solution. Pure distilled water alone will cause hemolysis if given intravenously in sufficient quantity, as reported by E. D. Krumbharr in *The Journal of the A. M. A.* for March 28, 1914. I always use a four- or five-tenths per cent solution of pure chlorid of sodium, relying on the salvarsan and the hydroxid of soda to bring the chemical contents of the solution, when given, close to isotonicity and therefore obviating the danger of hemolysis. Physiologic saline solution should not be used, only pure chlorid of sodium solution.

4. There may be a disturbance due to drug effect from oxidized or chemically changed salvarsan. This may be due, according to Wechselmann, to delayed elimination through the kidneys and comes on two or three days after the dose has been given. The salvarsan remains in the patient, becomes oxidized or otherwise changed, and acts as a new poison. Wechselmann thinks this retention is due to the patient's being full of mercury, which weakens the kidney cells and prevents elimination. I cannot agree with this conclusion. The fact that it seldom occurs after the first dose, but usually after several doses have been given, would seem rather to indicate that kidney intolerance to salvarsan had become established. Fortunately it is rare. But if one uses neo-salvarsan in full dilution the oxidation may also occur through the carelessness of the operator or his assistants. Let neo-salvarsan be mixed in warm water or warm saline solution and then let some delay occur in the administration and the patient may be placed in danger. Frequently very little attention is paid to the caution to keep the 914 solution at about 70 degrees F., and the necessity of its prompt administration. This oxidation or chemical change in the salvarsan is reported to have caused death in some cases, but I have fortunately never witnessed such a result. In my experience it has merely caused a rash varying from what resembles an ordinary heat rash to a severe dermatitis followed by exfoliation of the epidermis. It is very annoying, but fortunately not of frequent occurrence.

5. There may occur a peculiar disturbance while the patient is on the table, a tendency to angio-neurotic edema, which is at times alarming. This is simply an idiosyncrasy in-

creased by fright and at times accentuated by a full stomach. According to the New York Medical Journal for March 14, 1914, Galliot has reported in the Paris Medical for January 24 that a dose or two of adrenalin previously administered, either hypodermically or by the mouth, will prevent the occurrence of this edema and redness in cases who have shown that tendency while taking earlier doses. This angio-neurotic edema in more rare instances seems to affect the spinal nerves, causing intense pain in the back, which usually interrupts the administration of the dose. This pain does not occur in all cases of angio-neurotic edema and may occur without the flushing of the face. Neither the edema or the pain ever come after the dose of salvarsan has been administered, but, if at all, occur during the administration.

Emery, of Paris, reports supposed reactions due to contamination of distilled water from the glass parts of the still. He has found minute traces of lead and salts of salica in such distilled water. This conclusion must be erroneous, as a febrile reaction necessarily comes from organic matter and cannot be caused by minute traces of inorganic chemicals.

Patients who are carrying a crop of malarial organisms, as so many of our Southern patients are, without having had a recent malarial paroxysm, will frequently have a second day fever, undoubtedly from the effect of the salvarsan on the plasmodia. This occurs in my experience so constantly during the summer and fall when a large majority of my patients are from the South, and so rarely during the winter and spring when the majority of my patients are from the North, that I feel convinced of the correctness of this conclusion.

I have risked boring you by describing these different disturbances which may follow the intravenous use of salvarsan, not because the last four are of common occurrence, but to make the true endotoxin reaction more clearly understood and to show that it cannot be mistaken for any of the others or any of them for it."

When the drug has been administered to a patient in a hospital, the nurse should be instructed to record the temperature every hour

for at least twelve hours and frequently after that. The bowel movements should also be noted.

I have given salvarsan to a great many physicians and these would sometimes come back to me with a report that they had had no reaction whatever, for the simple reason that they had felt so well they had not recorded the temperature at any time. But perhaps the same patient would show a second day reaction, or, being more careful after the next dose, would find that the temperature had gone up a fraction of a degree.

With office patients it is my custom to take the temperature of each one while on the table, or before giving the salvarsan, and then to give each a thermometer with instructions to place same under the tongue for three minutes every hour and not to put warm water on the thermometer and not to shake it. The patient returns the next day and I inspect the thermometer and find it registers the highest temperature the patient has had after leaving my office. This, when compared with the table temperature, gives the endotoxin reaction. Even the most unintelligent patient can generally tell you about the bowel movements.

That there are some unaccountable cases showing no reaction in the face of active syphilis must be admitted. These, however, are so few that they cannot cause any error in judging those with positive reactions. When positive, as in most cases, I have found the endotoxin reaction a reliable guide to treatment in secondary and tertiary syphilis, except in cerebrospinal syphilis and in cases of deep eye lesions. Even in these cases the reaction is a great help, especially early in the treatment. One cannot expect much reaction in an eye case where there is no other syphilitic colony present, except a small one in the bottom of the eye or in the optic nerve, but in secondary syphilis and in tertiary cases involving only parts accessible to the blood stream, if the patient is given his full dose of salvarsan every week until there is no endotoxin reaction, it is at least a ten-to-one chance that his Wassermann will become negative within a few weeks. These cases should, of course, always be given this final Wassermann test before being dismissed.

THE OLD MAN AND HIS PROSTATE.*

By J. P. Runyan, M. D.,
Little Rock.

The prostate of the male is said to be the analogue of the uterus in the female. Be that as it may, there is one cardinal difference. In the female, after the menopause, the uterus has a tendency to atrophy, while, on the other hand, the hypertrophied prostate is the bane of old age in the male. Seldom does hypertrophy of the prostate give any serious trouble before the age of fifty-five, but rarely does it fail to give rise to more or less serious concern before the age of sixty-five. As a general rule, the symptoms gradually develop; and so gradually do they develop that at times it is difficult for the patient to remember when the trouble began. Occasionally, however, the symptoms develop with such suddenness that without any warning scarcely whatever the patient is seized with acute retention of urine that can be relieved only by catheterization that thenceforth may have to be continued. A study of the cases that have come under my observation has convinced me that, while many are able to live the so-called catheter life for months, and frequently for years, without any serious complications developing, most cases allowed to begin the use of the catheter, even though the most scrupulous cleanliness be observed, will, sooner or later, develop a septic bladder, and usually a resultant ascending infection of the kidneys that means the "beginning of the end." The mistake, I fear, that has often been made in these cases, is that because an examination does not always reveal an exceedingly large hypertrophy of the prostate, the conclusion has been reached that as a natural consequence there is not enough trouble to warrant surgical interference, and palliative measures are prescribed. It is not necessarily so that the largest prostate is the most troublesome, or the one that results in retention first. The location of the hypertrophy may have a great deal to do with whether there are obstructive symptoms early or late. The so-called "middle lobe" is sometimes very annoying even when the prostate, by a rectal examination, does not give indications of being very much enlarged.

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

This is the kind of case that gives rise to excessive irritability of the bladder, and, occasionally, to an acute retention.

To fail to recognize the importance of early surgical intervention, as a means of making the old man with an hypertrophied prostate comfortable in his declining years, and freeing him of one of the most potent causes of ascending renal infection, is like the pilot of a ship ignoring the signals from a lighthouse tower, or like the railroad man who runs his train by a station when the board shows a red light signal. We are inclined to think there is a pretubercular stage, in a patient predisposed to tuberculosis, in which, if the patient be given the proper diet and plenty of outdoor living and sleeping, it is possible to prevent the disease from developing. In such case the important thing for the medical adviser to do is to recognize the sign board along the road the patient is traveling, and direct his course in another direction. Preventive medicine has advanced rapidly during the past decade, and gives promise of vastly greater progress during the next one. It is often within the province of the physician to foresee an inevitable condition long before it occurs; inevitable if nature is left without human aid, but very evitable with the proper assistance from the surgeon. I know of no condition in which the patient is so helpless to obtain relief without surgical aid, or in which the patient can be in a more pitiable situation than the old man whose physician has quietly sat by and allowed dangerous complications to develop before he has been able to realize the seriousness of a gradually enlarging hypertrophy of the prostate. At first there is a slight frequency of micturition, diurnally and nocturnally, but not enough to excite any great anxiety on the part of the patient. This gradually increases until, sooner or later, the sleep is interfered with, and the patient begins to show indications of nervous exhaustion due to loss of sleep. The residual urine begins to decompose, undergoing an ammoniacal decomposition, and soon there is greater irritability of bladder. The straining in a futile effort to empty the bladder causes a hypertrophy and dilatation of the bladder. Bacteria gain access frequently through introduction of a catheter, sometimes without the introduction of a catheter, cystitis develops and then the royal road to ascend-

ing renal infection is paved on which the poor old man is soon found traveling, on his way to the bourne whence no traveler returneth. Such is the picture presented of so many old men of your acquaintances and mine.

How different the picture if we are able to direct his footsteps, early in the progress of the disease before the patient begins to develop any complications, but simply has a beginning hypertrophy of the prostate with sufficient symptoms to cause him to seek medical advice. The wise medical man will direct the footsteps of such a one into the operating room from which he will emerge minus his prostate. The method of removal, whether it be by the perineal or suprapubic route, makes very little material difference. Some prefer one route and some another. Some prefer one route in one class of cases and the other in a different class of cases. Personally, I have come to like the suprapubic route better. Some operate with a full bladder, others with the bladder empty. Both have their advan-

tages and disadvantages. The skillful surgeon may adopt either method. The less skillful one would likely do better to operate with the bladder distended. He is less likely to do violence to the peritoneum.

After removing the prostate by the suprapubic route, I like to leave in the bladder a soft rubber tube sewed into the bladder after the fashion of fastening a tube in the gall-bladder following operations for gall-stones. This prevents, in a great measure, the danger of infecting the space of Retzius. I have found that my cases usually do better when I irrigate the bladder, introducing the water through a catheter introduced through the urethra into the bladder, allowing the water to flow out through the drainage tube. This breaks down and washes out the blood clots, the result of the oozing that nearly always obtains after a prostatectomy. I believe in the efficacy of salol and gaultheria, given three to five drops every three hours for three days preceding the operation.

SUCCESSFUL REMOVAL OF A NAIL FROM THE RIGHT BRONCHUS OF A SIXTEEN-MONTH-OLD BABY.

By R. H. T. Mann, M. D.,
Texarkana.

Because of the points referred to later, I desire to report the following case:

J. W., male, age sixteen months, referred July 31 by Dr. C. S. Earley of Camden, Ark.

The history obtained from the child's father was that five weeks before, while playing in the back yard, the child suddenly had a very violent paroxysm of coughing, which was fol-

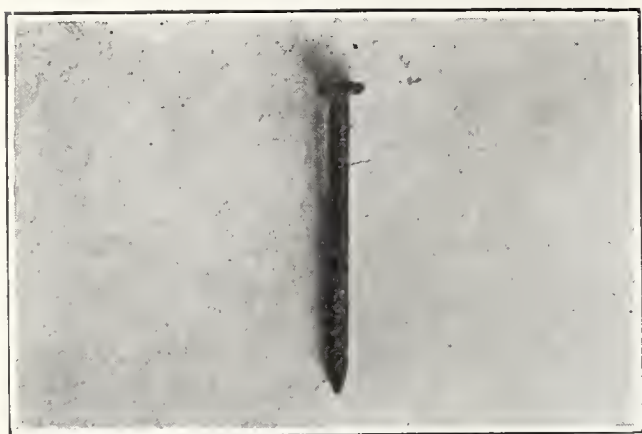
lowed by great difficulty in breathing. The condition, after a short time, grew better, and little or no thought was given the matter for some days; at the end of this time the symptoms began to grow much worse, attacks of coughing were frequent, the temperature was high, and the accompanying constitutional action was marked.

When the child was first seen some five weeks after the coughing spell, it had considerable disturbance in the lungs, and the temperature was 103 when it was admitted to the hospital. A radiograph revealed the presence of a nail in the right bronchus. Under ether a tracheotomy was performed, the broncho-



(To illustrate Article by Dr. R. H. T. Mann)

scope introduced, and the nail successfully removed. Two or three days after the operation



(Actual Size of Nail)

the temperature began to subside, a few days later the tracheotomy tube was removed, and at the end of the week the child was able to be taken home, having completely recovered with the exception of the skin wound, which had not entirely healed.

The interesting features presented by this case were:

First: The large size of the foreign body in a child of this age.

Secondly: The value of *x*-ray examinations in obscure conditions of the lungs and bronchi.

"MEASLES AND ITS COMPLICATIONS" —WITH REPORT OF CASES.*

By Earle H. Hunt, M. D.,
Clarksville.

Measles is an acute contagious disease, of the exanthematous type of infectious diseases. It is the most contagious of all the exanthemata. Almost every individual is susceptible to measles, and, comparatively speaking, very few persons escape having the measles.

I will take it for granted that so common a disease is readily diagnosed by all the members of the Society, as the history of the disease, the exposure, the conjunctivitis, the catarrhal stage, fever, and Koplik's spots are present in practically all cases.

I think we will all agree on the treatment of measles—fresh air, good light in the room, plenty of good, fresh water, and a liquid diet:

absolute rest in bed till the desquamation is complete and from five to ten days after desquamation, although it is usually very hard to get the patient to remain in bed so long a time.

Until we are able to enforce the public health law to the extent of quarantining, or at least more effectively isolating our patients with measles, we may expect to have epidemics of measles. Of course, prevention is the watchword, but prevention in our rural district is hard to instill into their minds, as most of the people think the children are to have measles anyway, and the quicker they have them the better.

While we agree that no special treatment so far as medicine is concerned, we should encourage the people to send for a physician and let him examine the heart, lungs and throat, and give the family the proper advice necessary to the proper management of measles. This is the main reason so many complications develop. They have heard that no treatment is necessary, and therefore they will not send for a doctor. Consequently the patients are allowed to stay up and eat most anything they want to eat.

During the past eighteen months I have had more than three hundred cases of measles reported to me, and I have had one hundred cases of my own. Then there have been several cases that were never reported.

The most common complications are diarrhea, bronco-pneumonia, otitis, and ultimately some form of heart trouble. A large number of our heart troubles are traceable to measles or other exanthemata in times past.

The most of my cases were in a mining camp where the sanitary surroundings are not particularly favorable to good health, although this particular camp is better than most mining camps.

I had sixty cases in children from one year to fourteen years of age. I had nine cases in children between one and two to develop pneumonia and entero-colitis. All ran the same course—merely an average case of measles, the pneumonia developing just as the measles were "going in," the diarrhea coming on about the same time the pneumonia developed. I was not called to see any of these cases till these complications developed. Through the aid of a Divine hand, one of the nine cases survived. The pneumonia did not

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

kill them—they all withstood that very well—but it was the entero-colitis which finally took them. Just too weak to survive.

I had twelve cases of otitis, and two cases developed mastoiditis, which were operated on and made good recoveries. Three cases in grown people had pneumonia, and all three developed pleuritic effusion.

A most peculiar coincidence occurred. Two of the grown patients were sisters, married, living half a mile apart; both developed pneumonia and pleuritic effusion. Then their married brother, living a quarter of a mile from the two sisters, developed otitis and mastoiditis. Now, one year since this family had their measles, the two sisters have developed tuberculosis. Fifty per cent of pleuritic effusions after measles finally prove to be tubercular.

In presenting this paper I did not hope to give you anything new, or any new cure or treatment. The case I had so firmly impressed me with the idea that the patients should be seen by physicians and carefully advised as to how to care for themselves, and the extremely high death rate of measles with complications led me to give this paper as a warning, and impress upon us that such a simple disease as measles needs the best and most intelligent care possible.

TURPENTINE AS A HEMOSTATIC.

G. Grey Turner, of Newcastle-upon-Tyne, contributes to *The Lancet* for July 31, 1915, his high opinion of turpentine as a hemostatic in wounds. Administered internally, it does not seem to have any particular value, and when used locally, it is necessary to cleanse the wound thoroughly first and to make firm compression over the strips of lint soaked in the fluid which are applied directly to the bleeding area. Properly used, it will control hemorrhage even in hemophiliacs, and it is particularly useful in secondary bleeding, where there is much oozing of pus. Turpentine is antiseptic, and gauze soaked with it keeps wonderfully sweet.—*New York Medical Journal*.

“Members of the medical profession, more than other people, are inclined to judge the ability of a doctor by the school from which he graduates. It is an absurd thing to do. A man in the practice of medicine is only what he proves himself to be. There are plenty of

failures among the graduates of the best medical schools in the world. The man who does not study as hard after he leaves school as he did in school will never rank very high among capable physicians.”

MEDICATED BROMIDES.

“Gee! you’re a reckless driver. How many did you run over today, Doc?”

“What! You sick, doctor? Can’t you cure yourself? Ha, ha.”

“Pretty wet out today, doctor. Great weather for you fellows.”

To the anesthetist: “Thank you, sir, for a maximum anesthesia with a minimum of anesthetic.”

To the surgeon from the visitor: “Thank you, doctor, for the privilege of seeing a very skillful operation.”

To the surgical assistant: “Thank you, sir, for an efficient assistance until you are better paid.”

To the doctor’s wife: “Oh, I’ll bet you’re jealous—all the women make such a fuss over him.”

And:

“Tell me, have you a dietograph?”

And:

“It must be terrible to be married to a doctor. You never have a moment of his company, do you? My, I wouldn’t marry a doctor!”—*The Medical Pickwick*.

NEW AND NONOFFICIAL REMEDIES.

During August the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Nonofficial Remedies:

Armour & Co.—Pineal Gland, Desiccated.

Hoffman-La Roche Chemical Works—Scopolamine Stable, Roche; Larosan, Roche; Pantopon (Pantopium hydrochloride).

A. Klipstein & Co.—Coagulen, Ciba.

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DR. WILLIAM R. BATHURST, Editor.

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ANONYMOUS COMMUNICATIONS.

Anonymous communications will not appear in the columns of this Journal, no matter how meritorious they may be.

Editorials.

THE SOUTHERN MEDICAL ASSOCIATION MEETING.

The ninth annual meeting of the Southern Medical Association will be held at Dallas, Texas, November 8, 9 and 10. This is the first time that the society has met west of the Mississippi River. In congratulating Dallas upon securing this meeting, which we hoped would come to Little Rock, we join Texas in extending a cordial welcome to those members who for the first time will visit our section. Just here we would impress on the members in Arkansas to attend, if they can possibly spend the time and money required. It concerns the Arkansas member next to our own State Society meeting. Dr. Oscar Dowling, president, and Dr. Seale Harris, secretary of the Southern Medical Association, it will be remembered, visited our meeting in May last, and added much to its success. A large delegation from Arkansas will be a compliment to them which they will appreciate. One cannot attend too many such meetings; there is always something to learn, and something whereby to profit. Again, the Southern Medical Association has honored Arkansas by giving some of its important offices to Arkansas members. Among them we find Dr. R. C.

Dorr, Batesville, first vice president; Dr. C. P. Meriwether, Little Rock, councilor, and Dr. William H. Deaderick, Hot Springs, chairman Section on Practice of Medicine.

We tried to get this year's meeting and failed. But we expect to land it sooner or later and we cannot go after it with any sort of good grace without displaying our interest in it by attending.

OUR COUNTY MEDICAL SOCIETIES.

In the last issue of The Journal we published well-written and interesting reports of the meetings of the Independence and Franklin County Medical Societies, the former sent in by S. A. Drennen and the latter by Thomas Douglass, respectively the secretaries of those societies. That is what we have been striving for. We have on many occasions bid every county society in the state welcome to our columns. The Journal is the organ of the State Society. The State Society is made up of the county societies. Therefore The Journal is yours to command. We want these reports. Publicity of your proceedings will wonderfully increase the interest of your members. Look over the organs of the various secret societies and you will find reports of their local meetings from all over their jurisdiction. Do not hide your light under a bushel. It is at once unscriptural and unwise. Let the world know you are alive; be up and doing. The only way to do this is to take advantage of the publicity offered you. It will increase the duties of your secretary very little, and if he is a live wire, as every secretary should be, he will willingly undertake it. It is only a matter of writing a few lines once a month. In this connection, let us suggest that at this time with the schools and colleges opening in September, it will be opportune to map out a course of study for the county medical societies for the winter. The county society cannot hope to flourish without interesting programs are arranged and carried out, and due publicity given.

BOOST OUR MEMBERSHIP.

Every reputable physician in Arkansas should be a member of the Arkansas Medical Society. Every member is interested in getting new members. The more desirable members, the greater influence the society will

wield. In the August issue we published the complete membership roll. Here is a good way by which to get new members. Scan the list. You certainly know every physician in your own community. The average doctor knows, by name at least, every recognized physician in his county. If you know, personally or by hearsay, any physician whose name is not on that roll, you know he is not a member. The next thing to do is to find out why he does not belong, and induce him to join. Point out to him the manifold advantages of membership. Argue the question with him if necessary. See what argument he can possibly advance against organization. There is no valid reason why every reputable physician with any pride in his profession should not be an active member of his State Medical Society. Let every member constitute himself a committee of one on membership and exert his influence to swell our ranks with good material.

RESTRICTED PRACTICE FOR DRUGLESS PRACTITIONERS.

“Under the pretext that they were ‘not practicing medicine,’ so-called drugless practitioners have prevailed on the legislators of several states to pass laws granting them the privilege of obtaining licenses to treat the sick under educational standards that are lower than are required of physicians. In the majority of these states the law does not permit such practitioners to practice surgery or to prescribe drugs; they are supposed to limit their practice to the use of the method or system of treatment advocated by the particular cult to which they belong. This arrangement, in which the public interests are forgotten, if not deliberately set aside, is indefensible from every point of view. It is class legislation,” says The Journal of the American Medical Association, “since it provides unequal standards for different groups of practitioners of the healing art. The limitation of practice is dangerous, since those who undertake to treat the sick should be acquainted with all methods of treatment and be free to use the one which meets the immediate needs of the patient—to save his life, if it is an emergency case, the prompt administration of a drug may be essential. The arrangement is a serious handicap to those drugless practitioners who honestly comply with

its provisions, and places a premium on law-breaking, deceit and pretense for those who disregard the restrictions. In short, this scheme of restricted practice provides a limitation which does not limit; it adds to the confusion already existing in the licensing of physicians; it defeats the purpose of the medical practice act, and betrays the public to the hordes of those who are not qualified by training to know whether a patient is sick or well, to differentiate between diseases, to select and apply the treatment most likely to result in a cure, or to take such measures as will prevent the spread of a contagious disease to others. The only way to correct the evils of this bad arrangement, and at the same time safeguard the public welfare, is to require every practitioner of the healing art to meet certain minimum educational qualifications by which it can be known that he has obtained a satisfactory training in the fundamental medical sciences. The interests of the public should not be pushed aside in order to favor any body of practitioners, by whatever name they may be called.”

SANITATION VERSUS INOCULATION.

A vast deal has been written of late of the value of inoculation against typhoid. The terrible mortality from typhoid in our concentration camps in the Spanish-American War has been dwelt on in comparison with the small mortality of the present war. But with all due deference there may here be a confusion as to the real causes for the smaller mortality of today. The fact is overlooked that in our concentration camps the sanitary conditions constituted a national scandal. Today armies are not subjected to such conditions even in the field, let alone in camps of concentration. And herein is more likely to be found the true cause of the decrease in typhoid. Dr. Lewis L. Seaman, U. S. V. E., as to the Spanish war, said that “the sacrifice of life from preventable causes was fourteen times as great as those killed in action.”

Going back a few years, attention is called to an editorial in the New York Medical Journal of May 18, 1912, comparing inoculation with sanitation. It said: “The chief factor in the phenomenal reduction of typhoid in India following widespread inoculation seems to have been the strenuous sanitary campaign then organized. In 1910 the organization in

which all were inoculated had the most cases, while the two with the least percentage inoculated had no typhoid at all. There seems to be a general disposition, the world over, to credit sanitation alone with the prevention of typhoid."

There is no intention to belittle the value of inoculation as a prevention of typhoid, but we must be careful not to relax our vigilance in enforcing sanitary laws. After all, prevention by sanitation is to be preferred on every ground to prevention by inoculation.

PAUL EHRLICH.

Paul Ehrlich will live in the history of civilization as one of the great investigators, genial, creative, fertile, excelling in "that boldness of the scientific use of the imagination which alone can extend beyond the obvious fact and reveal the unknown," one of the great benefactors of mankind.—The Journal of the American Medical Association.

Editorial Clippings.

TREATMENT OF EXOPHTHALMIC GOITER.

There seems to be a good deal of hesitancy of late in the radical surgical treatment of exophthalmic goiter. It would be interesting to know, if it were possible, the effects produced upon patients who have been previously operated on. So far as statistics show, the death rate has been kept down within reasonable limits; so far as facts are known, the death rate is unknown.

Evidently, one reason for the hesitancy in removing an enlarged and active gland is the unsatisfactory after-result; and many of the surgeons are now simply tying the superior thyroid artery, waiting a few months, and then tying other arteries, leaving the bulk of the gland intact. Then, too, there is the fear that there may be a re-growth of the gland that is left in the neck, just as there are recurrences of the common adenomatous type of goiter after removal.

It is safe to say that medical treatment is of the utmost importance before surgery is resorted to; and, so far as our experience goes, rest and proper foods are the essentials. Mild hydrotherapy is also indicated, and it is not infrequently necessary to try some of the

iodin preparations. Thyroidin, or thyroidec-tine, and sometimes the common extract of the thyroid, in tablet form, is used with very satisfactory results. The dose of the former should be given in from one-half to one grain doses only. It is not wise to increase even the common thyroid tablet up to its physiological effects. Professor Forchheimer gives, three or four times daily, a five-grain dose of quinin hydrobromid, together with a grain of ergotin. This method is a harmless one, and Forchheimer claims that many of the cases respond magically to these drugs. This is a re-establishment of the old quinin treatment in which five to twenty-five grains of quinin sulphate were given daily.

The sheet-anchor of the treatment, however, lies in a rest and relief from irritating surroundings. It is unlikely that we shall ever know how many cases of exophthalmic goiter treated surgically are really or decidedly benefited by the surgical procedure.

Hence the warning that all cases of exophthalmic goiter should be given an opportunity to improve or recover under a physician, and only referred to the surgeon when the case demands surgical interference.—The Journal-Lancet.

SOME COMMON MISTAKES IN THE INTERPRETATION OF LABORATORY REPORTS.

Franz H. Harms, M. D.,

Pathologist of the National Pathological Laboratory, Chicago.

There is a tendency to diagnose a nephritis *ipso facto* when the laboratory findings show the presence of albumin, and the severity of the condition is gauged by the percentage of albumin present. The object of this article is to emphasize the errors in these hasty conclusions.

It is necessary at the outset to exclude false or accidental albuminuria due to admixture of the albuminous exudate, blood or lymph through the urinary tract, by examination microscopically of the sediment and also by consideration of the clinical picture. After a false or accidental albuminuria has been excluded, there are still the renal albuminurias without anatomic lesions of the kidneys which must be ruled out. These are classified by Saxe as: (1) functional albumin-

uria: (a) after severe muscular exertion, (b) after eating an excess of proteid food, (c) following nervous shock and other vasomotor changes, (d) during labor, (e) in nervous children; (2) essential albuminuria: (a) cyclic, (b) orthostatic or postural, (c) albuminuria minima (Leroche and Talamon) after infections or debilitating diseases; (3) traumatic albuminuria, slight injury to kidney, massage of kidney, movable kidney, injury to brain, apoplexy; (4) hematogenous albuminuria, such as severe anemia, purpura, sepsis, cholemia, diabetes, leukemia, severe wasting diseases and after anesthetics; (5) nervous albuminuria, insanity, mental depression, psychoses, paralysis of certain parts of brain, epilepsy, delirium tremens; (6) albuminuria of renal stasis in conditions of passive congestion; cardiac, pulmonary and hepatic diseases in the presence of mechanical pressure (stones, tumors) may occur with casts and usually a few red blood cells; (7) toxic albuminuria, irritants (cantharides, turpentine), poisoning with arsenic, mercury, phosphorus, lead, antimony, alcohol, mineral acids, febrile diseases.

In many of these functional disturbances casts may be found.

Only when these are ruled out and when the urine shows albumin and casts repeatedly and there are clinical symptoms as well, can a positive diagnosis of nephritis be made.

The amount of albumin varies usually with the type of disease. In acute cases it is large in amount, becoming variable as it becomes chronic, and small in amount in severe cases of contracted kidney. Exceptionally, however, the amount may be large when there is no kidney lesion at all, as in passive congestion, and on the other hand, albumin may be entirely absent at times in interstitial nephritis.—From *Journal of Missouri State Medical Association*.

Abstracts.

DERMATOLOGY OF THE ANCIENTS.

An interesting paper on the dermatology of the ancients is contributed to *The Journal A. M. A.*, August 7, 1915, by Howard Fox of New York. A historical sketch of this kind properly begins with the Egyptians, and he quotes largely from Dr. von Klein's articles on the Papyrus Ebers published in *The Journal A. M. A.* some years ago. Specialism

seems to have been the rule among the Egyptians according to Herodotus, and their conception of medicine was certainly broader than ours, since they included cosmetics as not beneath the dignity of the physician. According to Paschke, identical substances at present in vogue as cosmetics were used thousands of years ago in Egypt. A considerable portion of the paper is taken up with the medical knowledge of the Hebrews. The only sources of our knowledge of this are the Bible and Talmud. The medicine of the ancient Hindus ranked next to that of the Egyptians, Babylonians and Hebrews in point of antiquity, and some of the descriptions in their medical writings are very recognizable. The real foundations of scientific medicine, however, were laid by the ancient Greeks; the best account of the practice of medicine, however, was written by a Roman, Celsus, who may possibly himself not have been a physician. The various points of interest in regard to skin diseases are judiciously discussed. The period of ancient history is considered to end with the fall of the Roman Empire in 476 A. D., and the Arabian and Byzantine schools of medicine are not included.

NERVE REPAIR.

E. G. Kirk and Dean Lewis, Chicago (*Journal A. M. A.*, August 7, 1915), after noticing the uncertainty of results of attempts to repair severed nerves by the various methods in use, say that, while the best results in transplantation are obtained from tissues removed from the same individual, nerves and blood vessels frequently cannot be sacrificed to bridge defects in nerves. A tube formed of fascia that would not collapse and undergo secondary cicatricial contraction would be ideal as the supply is unlimited, and fascia, when appropriate conditions are provided, contracts no adhesions and remains viable. They have experimented with tubulization of the sciatic nerve in forty dogs. Ten of these are still living, from seven days to nineteen weeks after operation, and seven specimens have not been studied histologically. The report is made of the study of twenty-two specimens, the animals having been killed at periods varying from one day to sixteen and a half weeks after operation. After exposure of the nerve and the removal of a section of it, a rectangular piece of the fascia lata was

taken. The smooth, shiny undersurface was used for the lining of the tube. Care was taken to avoid injury to the nerve fascia and surrounding tissue, and hemostasis was made as perfect as possible. The suture was applied loosely so as not to strangle any portion of the nerve, and hemorrhage from the nerve ends controlled. The tube was made of sufficiently large lumen to be twice the size of the nerve end to guard against secondary contraction. Dogs of all ages were used. Immediately after death, the nerves were excised, stretched on glass tubing, carefully orientated, and fixed. Usually two methods were employed in the histologic study, the most important being the Cajal silver method, as modified by Ranson. The criteria as to the success of bridging are stated. Recovery of function, which will require months, cannot be used on account of some anatomic peculiarity of innervation in the dog, for fair function returns about as soon as the postoperative tenderness is gone. Improvement in the foot drop is probably indicative of success, but a failure of it to appear in the earlier weeks does not mean that the defect has not been successfully bridged. The reaction to electric stimulation cannot always be depended on in estimating the amount of repair, and the best criteria of regeneration are the gross appearance and the histologic findings. Kirk and Lewis give the details as observed after various periods in the experimental animals. The axis cylinders and medullary sheaths of the distal segment degenerate almost completely in the second and third weeks, while a solid downgrowth from the proximal stump gradually invades the pulpy material in the tube. The axis cylinders develop first, most rapidly along the side of the tube, and at the end of the fourth week, the gap of 1 cm. or less in length is almost completely filled with a white substance longitudinally striated. At the fifth week the proliferative and regenerative changes are very marked. A serious objection raised against fascial tubulization is its tendency to contraction, but that it can be used successfully was shown by a patient operated on by one of the authors who had a complete return of function after its use. Their experiments showed them that defects in nerves can be successfully bridged by fascial tubes, the time required depending on the length of the defect and the age of the animal. They believe that the possibility of cicatricial

contraction of the fascia is precluded when the proper technic is employed and the fascia inserted only under proper conditions. The article is illustrated.

Personals and News Items.

Dr. Anderson Watkins of Little Rock has returned from Denver.

Dr. E. T. Bramlitt and family of Malvern visited in Little Rock last month.

Dr. and Mrs. J. P. Sheppard of Little Rock are in California.

The Saline County Medical Society met September 6, at Benton.

Dr. J. M. Phillips of Malvern visited Little Rock this month.

The First District Medical Society will meet October 26, at Jonesboro.

Dr. Charles R. Shinault has returned from Chicago, and will resume his practice in Little Rock, about October 1st.

Dr. J. R. Linzy, State Medical Director of the Modern Woodmen of America, has moved from Dardanelle to Russellville.

Dr. H. B. Henry, after an internship at St. Vincent's Infirmary, has located at Little Rock.

Dr. J. P. Bremer of the City Hospital, Little Rock, has accepted an internship at St. Vincent's Infirmary.

Dr. and Mrs. W. L. Hartsell of Warren visited Little Rock and Hot Springs this month.

Dr. and Mrs. E. H. Wilks and their daughter of Crossett have returned from an extended visit in New Orleans.

Dr. J. F. Rowland and his family of Hot Springs have returned from an automobile trip through Arkansas and Tennessee.

Dr. H. W. Brewer, a recent graduate of the University of Arkansas Medical Department, has located at Clarksville.

Dr. R. L. Saxon of Little Rock has returned from Colorado Springs, Colo., where for the last two months he has been with his wife, whose death occurred last month.

Dr. L. H. Lanier of Texarkana has returned from an extended trip North and West, in-

cluding San Francisco, where he attended the Pan-American Medical Congress and the annual meeting of the American Medical Association. On his return he attended the eye, ear, nose and throat clinics in Chicago, and later visited relatives in Tennessee.

We are at the present time in the midst of a campaign for new advertisers. In spite of the war and all pessimists to the contrary, we find things are coming our way. Give us your support at this time. Patronize our advertisers. Talk about *The Journal of the Arkansas Medical Society* to merchants, banks, business institutions and traveling representatives of drug and book houses not now represented in our advertising pages. Let us prove to the advertisers that we are thoroughly businesslike.

FRANK S. BETZ COMPANY EXPAND.

Considerable interest has been aroused in professional and trade circles by the rumor of changes in the personnel of the Frank S. Betz Company of Hammond, Ind. These rumors have been definitely confirmed by members of the company. Mr. Frank S. Betz, who hitherto has been virtually the sole head of this large business, has felt the need of active assistance in the management of the affairs of the concern, and especially to carry out plans of extension along the many lines in which the company is interested. As a result, a coterie of business men, including many high in the financial and business world, have purchased a large interest in the company, and extensive plans are being formulated for the general extension of the business in every branch. Mr. Betz naturally remains with the company as president and chairman of the board of directors. The changes will not affect the policy of the concern as to its methods of manufacturing and selling goods, but the infusion of new blood will mean greater activities and further extensions in every way.

The growth of the Frank S. Betz Company is another illustration of the remarkable success that can be achieved by a man of untiring energy and devotion to his work. He has built up this large business practically unaided, without the assistance of outside capital or borrowed money. It really represents the earnings on his original investment.

The new members of the firm are fortunate to align themselves with an established business house that has never carried a dollar of indebtedness except current bills for merchandise. With such a reputation for financial integrity, the plans of the new management seem assured of success.

Propaganda for Reform.

ALFATONE.—The Council on Pharmacy and Chemistry finds that alfatone (The Norwich Pharmacal Co.) is a worthless alcoholic cordial, and therefore ineligible for admission to New and Nonofficial Remedies. The council points out that alfalfa is good cattle feed and that only nostrum exploiters have suggested its use as a medicine for human beings. Based on the claimed composition, each maximum dose (3 fluid drams) should represent 45 grains of alfalfa, 1 grain of taraxacum, $\frac{3}{4}$ grain of gentian, 1-100 grain of berberin hydrochlorid, and 27 minims of alcohol. Since the bitter drugs are present in such small amounts that the preparation is almost devoid of bitterness, and as the medicinal value of alfalfa is practically nil, it is evident that whatever action alfatone may have is due to the stimulant effects of the alcohol (Journal A. M. A., August 7, 1915, p. 548).

URICOL.—The Council on Pharmacy and Chemistry reports that uricol (Uricol Chemical Co.) is a mixture of well-known drugs, marketed with false claims as to therapeutic action, with misleading and meaningless statements as to composition and under a name which invites uncritical prescribing. Examination in the A. M. A. chemical laboratory showed uricol to be a solution containing a large amount of sodium phosphate (64.20 gm. in 100 c.c.), with small amounts of lithium, nitrate, citric acid and glycerin, with probably some vegetable extract (Journal A. M. A., August 14, 1915, p. 638).

DUODENIN, ARMOUR.—Duodenin, Armour (Armour & Co.), is said to be prepared from the glandular or epithelial layer and mucous lining of the hog duodenum and to contain the maximum amount of secretin and enterokinase in stable form. The Council on Pharmacy and Chemistry held that there is no evidence for the administration of secretin or enterokinase, and that, so far as the available evidence goes, these substances are in-

active when administered. The council voted that Duodenin, Armour, be not further considered until evidence is submitted to show that there are conditions in which secretin or enterokinase are absent and that these substances may be utilized by the organism if administered (Journal A. M. A., August 14, 1915, p. 639).

JUBOL.—George J. Wallau, Inc., the U. S. agent of the French proprietary jubol, advises physicians to "jubolize" their intestines with "Jubol" if they suffer from constipation, hemorrhoids, and a long list of other conditions. The Council on Pharmacy and Chemistry held jubol ineligible for New and Nonofficial Remedies because the composition is not declared; because grossly incorrect and unwarranted claims are made for its therapeutic action; because the name does not indicate the alleged ingredients, and because so much of the composition as is declared indicates an unscientific mixture (Journal A. M. A., August 14, 1915, p. 629).

URODONAL.—Urodonal is a French proprietary sold in the United States by George J. Wallau, Inc., and is said to contain a chemical combination of lysidin, sidonal and hexamethylenamine. The Council on Pharmacy and Chemistry finds that urodonal is ineligible for New and Nonofficial Remedies because it is marketed under inconsistent statements of composition and with exaggerated therapeutic claims; because the name is non-descriptive; the combination is unscientific, and because it is marketed in patent medicine style (Journal A. M. A., August 14, 1915, p. 639).

OIL-OF-SALT.—According to C. A. Mosso, all diseases are "systemic poisons" in the body, and his "Oil-of-Salt" destroys all poisons and hence cures all diseases. It is exploited chiefly to factory foremen and superintendents as a first aid treatment. From an examination in the A. M. A. chemical laboratory it was concluded that "Oil-of-Salt" is a mixture consisting of about 2-3 linseed oil with 1-3 of a mixture of essential oils, including turpentine, camphor and sassafras, containing a little chlorid and free hydrochloric acid. It appears that "Oil-of-Salt" is also exploited under the name "First Aid Treatment" by the Pan-Alert Laboratories, Chicago (Journal A. M. A., August 14, 1915, p. 640).

MIXED VACCINES.—There is no rational basis for the use of mixed vaccines. So far as infectious disease, the etiology of which is known, are concerned, they are caused by a single, specific organism as, for instance, in diphtheria, tetanus, meningitis, typhoid fever. The mere presence of a multiplicity of organisms in cultures taken from an infected region is no sign that the symptoms are due to all the organisms. The use of the stock mixed vaccines of commerce is irrational because it is based on the conception that infections are caused by more than one kind of micro-organism; it is harmful because it encourages superficial examination, slipshod diagnosis and routine treatment without individualization; it is unnecessary because, when the physician desires to use more than one vaccine, he can inject them separately or mix them at the time of injection (Journal A. M. A., August 21, 1915, p. 719).

FISHER REMEDY.—According to the A. M. A. chemical laboratory, Fisher Remedy, a nostrum sold for the treatment of syphilis (five capsules cost \$25.00), is composed of mercury subsulphate (turpeth mineral) and mercury with chalk (Journal A. M. A., August 21, 1915, p. 733).

PERTUSSIS VACCINE.—The New York Department of Health appeals to the physicians of New York for a more extended use of vaccine in the treatment of pertussis. Most favorable results have been obtained with the prophylactic use of the vaccine (Journal A. M. A., August 21, 1915, p. 724).

FORMAMINT.—Formamint are throat tablets said to contain a compound of formaldehyde and milk sugar. In the United States it is advertised to physicians, while in England the public is asked to use it for affections of many kinds. The Council on Pharmacy and Chemistry reports that false statements are made in regard to the composition of formamint; grossly unwarranted claims are made for its therapeutic properties, and therefore its exploitation to the public is a public danger. The council published the account of the exhaustive bacteriologic examination to call attention to the evils connected with formamint and to the inefficiency of all methods of sterilizing the throat (Journal A. M. A., August 28, 1915, p. 816).

County Societies.

MONROE COUNTY.

(Reported by Dr. P. E. Thomas, Jr., Sec'y.)

The Monroe County Medical Society met in regular session in Clarendon, August 3, 1915. Members present: Drs. T. B. Syllas, P. E. Johnson, P. E. Thomas, Sr., J. C. Miller, A. H. Gilbert, president; P. E. Thomas, Jr., secretary.

Minutes of last meeting were read and adopted.

Clinical cases were reported by all present with full discussion, one of special interest being on aneurysm of popliteal space.

Paper on Pellagra read by Dr. P. E. Thomas, Jr., and discussed by all present.

An amendment to constitution was voted on and passed. Article 4 will hereafter read as follows: "Regular meetings shall be held monthly, on second Tuesday at Clarendon."

Dr. T. B. Syllas was appointed by the president to read a paper next meeting.

MISSISSIPPI COUNTY.

(Reported by Dr. Earl E. Craig, Sec'y.)

The physicians of Mississippi County held their regular monthly meeting in Blytheville Tuesday, August 10, with the following members present: Drs. G. Turrentine, Sanders, Usrey, Polk, Blytheville; Dr. Earl E. Craig, Wilson; Dr. Wm. Britt Burns, Memphis, guest; Dr. Chambers, visitor and now citizen of Blytheville; Dr. McCall, Armorer, and R. P. Hall.

The physicians of Blytheville honored the out-of-town and visiting doctors with luncheon at the Glensee Hotel, daintily prepared by the hotel manager, Mr. Fairfield, which was certainly a treat. Preparations were made for as many as twenty, but only about half that number showed up. After luncheon they retired to the Business Men's Club room, where they proceeded with the scientific part of their work.

The first paper read by Dr. A. E. Turrentine on "Gastro-Intestinal Disorders in Children" was well written, concise and to the point. The discussion was opened by Dr. W. T. Polk, followed by Dr. Wm. Britt Burns and all members present. This subject was of paramount importance, as the death rate in our little fellows is very much higher in this

disease than any other disease of childhood.

The next paper read was by our guest, Dr. Wm. Britt Burns of Memphis, subject being "Brain Tumor; Removal and Cure." He handled his subject in a brief, unassuming manner, giving clearly every detail and step in the operation. His paper was certainly interesting to the society, it being a very rare and dangerous operation. The society felt honored in having Dr. Burns, and extended him an invitation to return.

The great and fundamental distinction between latter-day and former medicine is our present sound conception of pathology. Modern practice rests on a pathology of which the principles are everywhere accepted. Ancient practice rested on a cloud-bank of whims and fancies, regarding the nature of which no two men agreed. Such divisions as still persist among educated physicians concerns the details of a dwindling therapeutics. A better understanding of each other, a wider knowledge, a culture founded on travel and observation in many lands, surely are bringing together all groups of thoughtful men in our profession.

GRANT COUNTY.

(Reported by Dr. O. R. Kelly, Sec'y.)

Sheridan, September 6, 1915.—The Grant County Medical Society met in this city September 4. Members present: J. C. Butler, O. R. Kelly, Sheridan; C. F. Cole, Prattsville; S. H. Whitehead, Aim, and C. B. Capel, Grapevine.

The scientific program was as follows:

"Typhoid Fever," by Dr. Whitehead.

"Estivo-autumnal Fever," by Dr. Butler.

"Pernicious Malaria" (Clinical report of three cases), by Dr. Capel.

The next meeting will be held on the first Monday in December.

Book Reviews.

OPERATIVE GYNECOLOGY.—By Henry Sturgeon Crossen, M. D., F. A. C. S., Associate in Gynecology, Washington University Medical School, St. Louis. Seven hundred and seventy illustrations. Published by C. V. Mosby Company, St. Louis, Mo., 1915. Price, \$7.50.

This book is devoted exclusively to operative treatment. The author says that gynecologic surgery is entering a new stage of development. He gives the technique of the various operations, the difficulties likely to be

encountered, the indications for operation in the various diseases and the selection of the exact form of operative procedure best suited to the particular case. The book consists of 670 pages and contains 770 original illustrations.

THE CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume IV, No. II. (April, 1915.) Octavo of 197 pages, 47 illustrations. W. B. Saunders Company, Philadelphia, 1915. Published bi-monthly. Price per year: Paper, \$8.00; cloth, \$12.00.

Contents:

"Murphy's Clinical Talks on Surgical and General Diagnosis."

"Bone Lipping of the Right Acetabular Margin and of the Neck of the Femur Following a Metastatic Arthritis.—Arthroplasty of the Hip.—Cheilotomy."

"Carcinoma of the Breast" (A Talk by Dr. William L. Rodman, of Philadelphia).

"Carcinoma of the Colon."

"Epithelioma of the Upper Lip Starting in an Old Lupus Scar."

"Intramural Fibroid of the Uterus."

"Hypertrophy of the Prostate."

"Spontaneous Massive Coagulation of Cerebrospinal Fluid with Xanthochromia" (A Diagnostic Talk by Dr. Charles Louis Mix; Comments and Operation by Dr. Murphy).

THE CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume IV, No. III. (June, 1915.) Octavo of 195 pages, 73 illustrations. W. B. Saunders Company, Philadelphia, 1915. Published bi-monthly. Price per year: Paper, \$8.00; cloth, \$12.00.

Contents:

"Murphy's Clinical Talk on Surgical and General Diagnosis (Fractures and Dislocations)."

"A Talk on Appendicitis."

"A Diagnostic Talk on Intestinal Obstruction Due to a Large Gall Stone."

"Unsuccessful Gastro-enterostomy for Ulcer—An Analysis of Its Causes—Suggestions for Better Technic" (A Clinical Talk by William J. Mayo).

"Friction Burn of Left Ankle."

"A Series of Drawings Illustrating Dr. Murphy's Method of Suturing a Predicted Muscle Flap Into the Laminectomy Defect to Protect the Exposed Dura and Obliterate the Dead Space which Would Otherwise Fill with Blood Clot."

"Embryonic Tumor of the Testicle."

"Tuberculosis of the Left Spermatic Cord and Epididymis."

"Chronic Tendovaginitis of the Extension Tendon of the Thumb."

"Painful Exostosis of the Os Calcis."

"Congenital Perineal Fecal Fistula."

"Hypernephroma of the Right Kidney."

"Myeloid Sarcoma of the Left Malar Bone."

"Malignant Epulis of the Mandible" (Giant-cell Sarcoma).—Excision.

ESSENTIALS OF LABORATORY DIAGNOSIS.—Designed for students and practitioners, by Francis Ashley Faught, M. D., Director of the laboratory of the Department of Clinical Medicine, and assistant to the Professor of Clinical Medicine, Medico-Chirurgical College, etc., Philadelphia. Containing ten full-page plates (four in colors) and fifty-eight text engravings. Fifth revised edition. Published by F. A. Davis Company, Philadelphia. Price, \$3.00.

This book furnishes in a concise and compact manner the analytical methods employed in the clinical laboratory.

The appendix has been arranged to furnish a working basis for the equipment of a clinical laboratory, at the same time affording reference for the preparation of stains, reagents, etc., mentioned in the text.

PROGRESSIVE MEDICINE.—A quarterly digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., assisted by Leighton F. Appleman, M. D., Philadelphia. Volume II, June, 1915. Published by Lea & Febiger, Philadelphia and New York. Subscription price, \$6.00 per annum.

The contents of this volume are as follows:

"Hernia," by William B. Coley, M. D.

"Surgery of the Abdomen, Exclusive of Hernia," by John C. A. Gerster, M. D.

"Gynecology," by John G. Clark, M. D.

"Diseases of the Blood," "Diathetic and Metabolic Diseases, Diseases of the Thyroid Gland, Spleen, Nutrition, and the Lymphatic System," by Alfred Stengel, M. D.

"Ophthalmology," by Edward Jackson, M. D.

INTERNATIONAL CLINICS.—A quarterly of illustrated and especially prepared original articles by leading members of the medical profession throughout the world. Edited by Henry W. Cattell, A. M., M. D., Philadelphia. Volume II. Twenty-fifth series, 1915. Published by J. B. Lippincott Company, Philadelphia. Price, \$2.00.

This volume is divided into four parts, namely: "Diagnosis and Treatment," "Pediatrics," "Medicine," and "Surgery."

Under the section on surgery the following articles are given:

"The Orthopedic Clinic of Fred H. Albee," by P. G. Skillern, Jr., M. D.

"Gigantic Duodenum Due to Kinking at Duodenal Jejunal Junction, Associated with Dilatation of the First Portion of the Jejunum, Gastro-enterostomy, and Fistula from the Jejunum Into the Transverse Colon," by George M. Dorrance, M. D., and John B. Deaver, M. D.

"Some Remarks on Gastro-intestinal Surgery and Pathology," by Charles Greene Cumston, M. D.

"Intranasal Frontal Sinus Operations: Conservative Surgery," by William L. Ballenger, M. D.

"The Application of Surgical Principles to Operations on the Nose and Throat," by Harold Hays, A.M., M.D., F. A. C. S.

THE MEDICAL CLINICS OF CHICAGO.—Volume I, No. I. (July, 1915.) Octavo of 208 pages, 37 illustrations. W. B. Saunders Company, Philadelphia, 1915. Published bi-monthly. Price per year: Paper, \$8.00; cloth, \$12.00.

Our first reference to this book is to think of congratulating the publishers in presenting this valuable clinic to the profession.

Volume I, No. 1, Table of contents is as follows:

Clinic of Dr. Charles L. Mix, Mercy Hospital.

Clinic of Dr. Charles Spencer Williamson, Cook County Hospital.

Clinic of Dr. Isaac A. Abt, Michael Reese Hospital.

Clinic of Dr. Robert B. Preble, St. Luke's Hospital.

Clinic of Dr. Maurice L. Goodkind, Michael Reese Hospital.

Clinic of Dr. Frederick Tice, Cook County Hospital.

Clinic of Dr. Walter Hamburger, Cook County Hospital.

Clinic of Dr. Ralph C. Hamill, Cook County Hospital.

DOMESTIC SCIENCE TEXT-BOOK.—Every physician will be amply repaid for a study of this book. Price, 50c. Published by The Commonwealth Press, Chicago, Ill.

The doctor frequently has occasion to prescribe a diet for his patient and under such circumstances is interested in the healthful-

ness and action of every ingredient of food. Probably no ingredient is more influential in the production of appetizing and nutritious foods than is baking powder and at the same time there is no ingredient over which there has waged such fierce trade controversies as to healthfulness and efficiency.

In view of these facts, the medical profession will welcome a concise treatment, setting forth in simple language, the facts in relation to the manufacture, chemistry, and relative healthfulness of the different kinds of baking powder.

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No. 5

Original Articles.

DETERMINANTS OF MEDICAL PROGRESS.*

By A. C. Shipp, A. M., M. D.,

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University of Arkansas, Medical Department,
Little Rock.

It is difficult to find a more interesting or profitable study than that of the progress of the human race along the road from long ago to now, and of the influences that have been instrumental in determining our present status: none occupy a more prominent position than medicine and its closely related sciences. Individual and racial preservation being a fundamental necessity, not only to existence, but to progress, it is but a natural result that among the earliest observations of the race would be those that would result in the alleviation of suffering and the preservation of life. Life with all its varied phenomena and experiences, joys, sorrows, hopes, fears—a source of wonder today, in the dawn of our history was a bound volume of mystery sealed and kept by superstition, and death was looked upon as explicable only as being a visitation of the unseen gods, hence, to use the lifeless body as a means to study the phenomena of disease was sacrilege of the most flagrant type, and to do so was sure to incur the anger of the gods by thus trying to pry into their secrets. It was in such a soil that the early study of medicine took root. It was in such an environ that the science of medicine as we know it today had its origin, and as we look back upon that humble beginning we wonder at the vast stretches that have been traversed, what deserts of superstition have been crossed, what mountains of ignorance scaled, what

oceans of dogma sailed and charted in the long journey from then to now.

Remarkable as the advance has been, the determinants have been few, though their forces have been exerted on the race from many different angles and through many different agencies. These determinants find their origin in the race's efforts at preservation plus the effort to provide most comfortable environs of existence, environs conducive to further advance; this is Nature's method—evolution.

Slowly through the centuries, with a line here and a percept there, human experience accumulated, rules of conduct grew out of experience and the primitive laws of health became written into the traditions of the early race until in the gray dawn of history we find the physician-priest of Egypt, one of the influential factors of the civilizations of his country and medical instructor to the Hebrews and Greeks, the former of which under their law-giver Moses, codified laws of sanitation that so far as they went have never been surpassed. Among the Greek men of science Hippocrates stands out as the father of medicine. It is certain that he studied and described with fair accuracy many diseases of his day which are still common. Hippocrates and his followers laid great stress upon the speculative phase of medicine closely associating with the physical the metaphysical. For centuries medical instruction was confined to theoretical and speculative exposition, a sharp line being drawn between the practice of medicine and that of surgery, the latter being regarded as menial. Prejudice against desecrating the human body was marked well up into the eighteenth century, and not until 1814 do we find the first independent anatomical laboratory, located at Breslau; ten years later Purkinje's physiological laboratory was established in the same city; one year later Lie-

*Read at the opening exercises, University of Arkansas Medical Department, September 14, 1915.

big's chemical laboratory was established at Griessen; pharmacology obtained its first laboratory in 1849, at Dorpat, while Virchow opened his pathological laboratory in Berlin in 1856. From these dates we see that the beginning of technical laboratories in all the fundamental branches extends over less than half a century and is so recent as to seem but yesterday.

The suddenness with which the whole trend of medical investigation was so quickly changed from speculative to laboratory methods of study is but another illustration of the truth that one demonstrated fact will upset centuries of theory. From earliest history we have record of constant discussion of the origin of life, various theories being advanced: Anaximander (610 B. C.) held the theory that all life came from moisture; Empedocles (450 B. C.) attributes to spontaneous generation all living beings peopling the earth. Three centuries later Ovid defended the same doctrine, while in the Georgics Virgil tells how to artificially produce bees.

The doctrine of spontaneous generation was not common only to the ancients, but came down through the middle ages and even to the generation just passed. In 1542 Cardan, in his "De Subtilitate," tells us how the water begets fish and how many animals originate in fermenting masses. Other writers of this period describe methods of production of mice, and Kircher tells how animals were produced under his own observation by the action of water on stems and plants, which recalls vividly to mind the horsehair snake of our childhood days.

No one doubted the spontaneous origin of maggots in putrefying meats until Francesco Redi, in 1691, showed their true origin. In 1683 Anthony van Leeuwenhoek, the father of microscopy, gave us the beginning of the compound microscope, discovered bacterial life, furnished the beginning of the end of purely speculative medicine by affording the instrument that eventually disproved the theory of the spontaneous origin of life and started us off from a rational base and initiated rational methods of approach to the solution of many problems heretofore unapproachable save by way of metaphysics.

From this time we pass through a period of one and a half centuries of scientific groping from which we come convinced that we must divorce medicine from metaphysics, supersti-

tion and dogma. As before mentioned, we enter upon this era with the work of Purkinje and Virchow, followed by that of Pasteur, Koch, Ehrlich, Lister, and contemporaries too numerous to catalog at this time. Building from their work, men of the passing generation, our immediate fathers in the medical profession have been able to advance medicine farther in their brief span of life than was done in all the centuries up to the beginning of the eighteenth, but they were able to do that because as "heirs of all the ages" they stood equipped with all the experience of the race; and in view of this, with the added heritage, may we not look into the morrow with a faith born of knowledge, and see from the peaks of new achievements the lions that fright us today chained and subdued?

Let us call in review some of these wonderful achievements of the passing generation: the discovery of the etiological factor of tuberculosis, pneumonia, diphtheria, syphilis, malaria, and many other common diseases; the discovery and management of the cure for syphilis, sleeping sickness, malaria, and a rational management of the major part of the infectious diseases; the discovery of asepsis, anesthesia, and the development of surgical technique to such a state that there are men close to our door who daily do operations which the masters of two or three decades ago trembled to do; and last and more far-reaching than these, though growing out of the experience and benefits of these discoveries, is the discovery of a new science, or, better, the coming of medicine into its fuller field of service, with which is correlated all medicine and all science, as a result of which the ideal state of man is approached as the limit. I refer to preventive medicine, the development of which lies in the hands of this generation.

Preventive medicine has grown out of the laboratory study of anatomy, physiology, pharmacology, pathology, bacteriology, and chemistry, principally, though not exclusively, for medical education is but part of education in general. In this connection I wish to quote from Henry S. Pritchett, president of the Carnegie Foundation for the Advancement of Teaching. Mr. Pritchett says, "Education in any nation is one thing, not a series of separate and unrelated things. For this reason professional education is of vital interest, not only to those in the professions, but to the average citizen. In particular is this

true of medicine. Perhaps no other professional man, not even the priest, is allowed to enter so intimately into individual and family life as the modern physician. Every person, whether he be rich or poor, is concerned that the profession of medicine shall be placed upon the best possible plane, that the men who enter it shall be chosen under good conditions, and that the unfit and unworthy shall be excluded from it.

"While the average man appreciates this fact in a dim way, as a practical rule of conduct he entirely ignores it. He chooses his physician with very little more care than he chooses his coachmen. It seldom occurs to him to inquire what was his previous training, and what have been his opportunities. He does not concern himself with the question as to whether he is an educated man. He takes his physician on the recommendation of a friend or on the basis of accidental acquaintance, and the notion that he should inquire in advance as to the fitness of the physician and as to the quality of his training rarely enters his head. Moreover, the ordinary citizen fails to appreciate his individual responsibility for the betterment of the profession itself. Medicine is a profession, not a trade. Not only is it a profession, but it is one of such enormous importance to society, carrying such opportunities for good or ill, that modern society is compelled to regard it as a quasi-public profession."

Because of this quasi-public nature of the medical profession, the responsibility of the layman becomes one not to be evaded. The creating of proper laws of sanitation, together with the enforcement of the same, become of paramount importance, and we have the evidence of history that no civilization can ascend to a higher plane than that of the health of its citizenship, and when the general health deteriorates permanently the nation goes into rapid decay. As proof we cite the glorious civilization of ancient Egypt, Chaldea, Greece and Rome, any of which at the height of their grandeur and power were, comparatively speaking, greater than our own country, and lived to a greater age than that of our own at present, but in the end were overcome, not by foes from without, but by disease within, namely, the plague, malaria and hookworm, a ghastly trinity; and replacing the plague with tuberculosis and pellagra, not mean substitutes, we have the same piratical hordes ex-

acting toll from our citizenship daily. And why? Because we will. They sat helpless or fled to the mountains in panic, but were pursued by relentless death, poverty and crime, the boon companions of disease, until their splendid civilizations were destroyed and their palaces and temples became the abode of snakes and bats and owls. They were not to blame because they fought in the dark, not knowing the nature of their foe, but we are inexcusable and culpable for the annual loss of property and life due to the same causes. We have their history, we know the result, we know the cause, we know the cure, yet we sit comparatively listless and see our health, our wealth and our homes destroyed by these invaders, and, so far as our state is concerned, we are offering no adequate resistance. Figured from a monetary standpoint alone, we of Arkansas are indulging in a royal wastage. From Irving Fisher's tables of vital statistics the annual loss to the United States from preventable diseases is one and one-half billion dollars, of which amount, figured from comparative wealth of the state, our share is ten and one-half millions per year, which is a low estimate, for we come well down in the roll of states in our medical application of preventive medicine, medical education and hygienic education, to say nothing about the enforcement of the laws of sanitation. If we would occupy the place in the sisterhood of states to which the area of our state, the population of our state, the wealth of our state, the traditions of our state entitles us and for which we are responsible, it will be necessary for us to meet the sanitary needs of our state with the same patriotism with which we would rise to repel a foreign foe: indeed, we can conceive of no foreign foe so relentless as the foe of disease which holds in thralldom constantly fifty thousand of our citizenship, half of which is preventable; think of it, twenty-five thousand sick people in Arkansas that should be well, and we tolerate it and make comparatively little effort to prevent it. What is the evidence that it is preventable? The history of states, countries and districts formerly situated as we now are, but now free from our scourge.

We will mention the splendid portion of our country developed from what was originally the Northwest Territory, which was a vast wilderness of rolling prairies, forests, swamps and marshy areas, which in no more

remote a time than that reached by the memory of the oldest inhabitants were in many parts all but uninhabitable because of typhoid and malaria; but today the first is a rare occurrence, while the latter is only imported and such a rare condition that a case in one of the hospitals is almost a medical curio. Another triumph of preventive medicine is seen in the conquest of malaria and yellow fever in the Canal Zone, where millions of money and thousands of lives were sacrificed before medical science took hold of the situation and made a pestilential jungle inhabitable.

These demonstrations of the fact that the conditions which harass our state can be overcome shames our comparative inactivity. Where other states are spending in education and preventive medicine enormous amounts and reaping in multiples thereof, and in addition, health, happiness, good roads, beautiful homes and all conveniences in rural as well as urban communities, we are allowing our State Medical School, State University, State Board of Health and other educational institutions but scant munitions of war with which to carry on our defense through the education of the people and administration of public health laws. What avails the expenditure of great wealth in advertising our resources if we do not keep pace in education and sanitation? It is a modern case of sending our annual tribute to the Minotaur, and it is high time, in the light of present civilization, that we stop this tribute by slaying the monster, and it can be done by all the people uniting and making use of the weapons of preventive medicine, more powerful than the magic club of Theseus.

In order that the sanitary needs and health of our citizenship shall be looked after adequately, medical education must be liberally supported, and more liberally than heretofore. At the present time, thanks to the men representing us in the state government, and the endeavors of many public-spirited citizens co-operating with the student body and faculty, we have ample room for our laboratories and almost sufficient equipment, if maintained, to carry on the work of the laboratory for years in a manner that compares favorably with the best methods of the East or West. In our clinical departments our needs have not yet been fully met, though I am glad that we are able to offer much more than ever before through the recent acquirement of greatly

increased hospital clinical material. We yet need means of increasing the equipment for teaching the work of the two clinical years. We not only need, but must have, if we are to serve the people of the state as they deserve and as our ideals and hopes demand, a modern, well-equipped state hospital under the management and control of the Medical Department of the University of Arkansas. Then will we be able to rise to the plane of our ideal of service. Educated public opinion, the determinant in every case of progress, will demand this. The start has been made and we must not turn back—we cannot turn back. From every county, district and village a crying need urges us on. Pellagra, one of the most appalling diseases of our time, is in our midst, and at this moment has within its fatal hold thousands of our fellow-citizens. This problem must be solved and it devolves upon the state to furnish adequate means for study. Malaria is incapacitating thousands, a condition which should not be tolerated. Hookworm is so vitiating thousands that our commercial and industrial enterprises suffer because of impaired productivity, to say nothing about the happiness of the individual; and all these can be prevented if we will. Surely, here is a field for patriotic service than which none is greater. The expense of this work must be borne by philanthropy and the state, for so great is the amount of work to be done and so great is the expense that the burden must be divided among the entire commonwealth. And what is more natural, since the entire commonwealth is the beneficiary? New men must be trained, and, as just pointed out, they must be trained by the state. The influence that shall bring this about must be, as always in every onward move, public opinion aroused by education to see the public need; then to demand not only better, but broader service, and then to afford constructive legislation along the lines of life and home conservation, which we believe should receive at least as much consideration in the public mind as conservation of any other form of wealth, the prevention of hog cholera and tick eradication not excepted, as important as they are.

Every man and woman in Arkansas interested in this movement is grateful for the support given by our last legislature, which gave as liberally as funds would allow, and we look forward to the future with full confidence that the work just begun will be carried on

with all the available resources which the state can command.

Our responsibilities are great, but our hopes are greater. We have the beginnings of great educational institutions, the beginning of a great center of medical education, the beginning of a great state department of health, all provided by our legislature, the representatives of the people; but like the Russians, our supplies are not sufficient, and we as a people, we as a state, must do more, infinitely more, and we shall give to posterity a state the name of which will be a synonym of all that is desirable. The work has been begun. We have here today one who has seen the vision, the Arkansas that shall be, who has tried in this vision to realize a greater medical college, and to outline laws of public health which shall tend to bring out the glorious day. I refer to our dean, Dr. Morgan Smith.

I say to you that no state in this Union has better health laws and regulations than those outlined in this little book, Rules and Regulations of the Arkansas State Board of Health. It remains for you and me and all of us to see that public opinion is so molded that they shall be carried out. Following Dr. Smith we have had two; Dr. Young and Dr. Garrison, whose efforts to realize the same ideals are noteworthy.

Let us look for a short time at the part you, as students of medicine, are to have in the making of our state. You have chosen your life's work, and a noble one it is, though I give you notice now that if you do your part well and nobly and live up to the best traditions of that profession, you have taken upon yourself the life of a renunciant. You must renounce visions of great wealth, selfish repose and a life of ease, and espouse the life of sacrifice, probity, temperance and wisdom. Forever before you is the life of a student; yours is the life of social service in which the welfare of your people, physically, socially and morally, shall ever control your actions. In political questions you shall ever espouse the right, not in a Pharisaical way, but as the honest publican. In the great question of state and national attitude toward intoxicants, in view of your scientific knowledge and training, there is but one path before you, and it is a straight and narrow one. If you meet these conditions aright your life will be a success and the esteem of your fellow-citizens will be yours and you shall have the reward of a

realized ideal. If you fail, I warn you that the ghost of your ideals shall ever follow you, and like that of Banquo, it will not down.

The attitude of the true physician is expressed well in the lines of Sam Walter Foss:

Let me live in a house by the side of the road,
By the side of the highway of life,

Where the race of men go by—
The men who are good, the men who are bad,
As good and as bad as I.

I would not sit in the scorner's seat,
Nor hurl the cynic's ban;

Let me live in a house by the side of the road,
And be a friend of man.

Let me live in my house by the side of the road,

Where the races of men go by;
They're good, they're bad, they're weak, they're strong,

Wise, foolish, so am I.
Then why should I sit in the scorner's seat
Or hurl the cynic's ban?

Let me live in my house by the side of the road,
And be a friend to man.

For the school that is to be your alma mater there is in the future development of the commonwealth of Arkansas a work of such importance that its permanency and greatness is guaranteed. In full realization of the great work to be done, remembering the past, and looking to the future with confidence in the loyal support of student body and alumni, in behalf of the faculty I wish to pledge you our best efforts to forward every interest of the institution.

THE STATE HOSPITAL FOR NERVOUS DISEASES.*

By Frank B. Young, M. D.,
Superintendent State Hospital for Nervous Diseases,
Little Rock.

There has been so much notoriety and newspaper comment upon conditions at the State Hospital for Nervous Diseases that I have concluded that it would be well for this organization to have a short resume of matters as they have existed in the past in the hospital, and as they now exist, and what is to be expected in the future. I hope to be able to cover these points in such a manner that those present will leave with a better idea of the true situation of this institution than they have ever had before.

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

The unfortunate part of the criticism of a public institution in this state, and I suppose in all other states, is that these criticisms are made by individuals who have either not been in the institution, or who have gone through in a very casual way and put into print their impressions; or those who have gone through with the express purpose of finding fault. It is seldom, indeed, that the critic of any public institution is thoroughly familiar with the conditions that exist in that institution.

I wish to say this with the kindest feeling toward all, and with criticism to none, that when one wishes to discuss or criticize any person or any institution, it is the absolute duty of the critic to obtain all possible information about that person or that institution. With this short introduction, I propose to enter upon a discussion of what the State Hospital for Nervous Diseases is now, and what we hope to make it in the near future.

Beginning first with the commitment of the patient to the State Hospital, I wish to call your attention to the papers required by law to admit a patient to the institution. These are: first, a charge of insanity; second, two complete interrogatories by reputable practicing physicians; third, the order of the court committing the patient to the hospital; fourth, a warrant of commitment. In order to receive a patient legally, it is necessary that all these papers be filed previous to the commitment of the patient, or be brought with the patient. Really, the law requires that an application be made in advance of bringing the patient. However, for the past two years or more, patients have been received at any time they were presented with a full set of papers. We trust that we may be able to continue this practice, and believe that we will. I wish to ask that each physician in the state of Arkansas use more care than is usually taken in the preparation of interrogatories for sending patients to the State Hospital. These interrogatories are designated for the special purpose of giving the management of the hospital very important data in regard to the patient's history, and when they are slighted or run over carelessly, it greatly inconveniences us and does the patient an injustice. Many points in the past history of the patient which should be given in the interrogatories are overlooked and there is no way that the management of the hospital can find out later. Let me appeal to you to fill out all the inter-

rogatories in a plain and careful manner.

It is our practice, as soon as possible after the commitment of the patient, to have a thorough physical and mental examination made of this patient. Should any condition exist which requires further observation, the patient is kept under observation for the necessary length of time. When the examination is completed, the patient is presented as promptly as possible to the staff meeting, which is held each morning. At this meeting all important points of the case, both physical and mental, are discussed, and, as far as possible, a definite classification of the case is made in regard to the mental condition, and the diagnosis and prognosis of the physical condition is very carefully considered. Should any change in the condition occur thereafter, the same is carefully entered upon the records at the time of its occurrence, and if of sufficient importance, the patient is re-presented and re-classified.

Following the staff meeting each morning, each assistant physician makes a round of his service and at noon each day there is another staff meeting, at which the condition of each patient is carefully gone into. It is considered that those not mentioned are in good physical and mental condition, but each physician is expected to go thoroughly into the condition of those on his service, and to report in the noon staff meeting all conditions requiring special investigation. Should the circumstance warrant, the superintendent or assistant superintendent at once goes to any case that requires special attention, in consultation with the physician on the service. In any extreme case, both the superintendent and assistant superintendent go, and if for any reason it should be deemed advisable that any other member of the staff go, he is immediately called upon to accompany the physician having the service. In this connection I wish to say that immediately upon the receipt of a patient, or as soon thereafter as possible, a careful examination is made, in the laboratory, of all the secretions and excretions of the body. Our routine is to have our pathologist examine the blood for malaria; make a hemoglobin test and differential blood count; a Wassermann test, and a thorough urinalysis; and if any indications are shown, to make a Wassermann of the spinal fluid and examine the fees. These examinations are made before the case is reported to the staff, and make

up a part of the composite picture upon which the diagnosis, prognosis and classification is based. When a case is presented to staff meeting and an almost positive classification and prognosis cannot be made, it is deferred for further examination and observation, and represented later. The occasion for this arises quite often, and on the second presentation it is to be expected that a reasonably certain classification and prognosis will be made.

Immediately upon receipt of patients they are placed upon the receiving ward, and from there, after due observation, are transferred to the wards to which they seem most fitted. The classification of the patients determines the wards to which they are referred. If physically ill, they are sent to the infirmary. The various types are sent to wards best suited to their mental and physical condition.

I wish to briefly outline the plans that we have in mind for improvement within the next two years. Out of the general repair fund the present bakery will be remodeled and practically rebuilt. In fact, material for this work is already being placed upon the ground, and we expect to have this completed within the next two months. The present bakery is a disgrace and would not be tolerated as a private enterprise.

The laundry will be thoroughly remodeled, a sterilizing washer, two additional large rotary washers, another extractor and pressers and ironing machinery will be installed, also using much space in the building which has been wasted in the past. In this way a modern laundry will be equipped. It was the desire of the present superintendent to have an entire new laundry, and that the present laundry be converted into a dining room for all ambulatory patients, but the financial condition of the state would not justify this at the present time. The present distribution of food is wholly unsatisfactory, it being carried to the wards from the central kitchen in open containers, subject to contamination by flies, dust and rain. Within a short time we expect to have in operation a complete set of fly, dust and water-proof conveyances whereby food may be carried in a sanitary and satisfactory manner. In the absence of the central dining room, this will be the most satisfactory arrangement, and even with a central dining room, a larger number of patients would have to be cared for in this manner.

It is also our intention to finish up the ground floor of the male side of the infirmary by concreting the floor and plastering the ceiling and walls in such a manner as to care for all the senile and untidy men who are now cared for on the ward known as B-1 South. This will give these old men better opportunity to secure hospital care and proper food than at the present time. Further, we have arranged to add to our scientific equipment a complete and modern x-ray outfit, an up-to-date hydro-therapeutic apparatus for women, three complete electrical diagnostic and therapeutic apparatuses, one of which will be installed in the male hydro-therapy, one in the female hydro-therapy and one in the infirmary. The ground floor of several buildings will also be finished. These improvements will care for between 200 to 250 more patients, which should be sufficient accommodations for the next two years, this being based upon the average increase in the past. At the end of the decennium 1910-1912 there were 1,335 patients; at the end of decennium 1912-1914 there were —; last night there were —. However, the increase of capacity made by the legislature of 1913 was approximately 400 as against 250 by that of 1915. The marked increase in recent admissions is traceable, in part, to cases of drug addiction due to enforcement of the Harrison law.

As to the future needs of the institution, I wish to call your attention to the following:

- 1st. The pellagra wards.
- 2d. For more room in the infirmary.
- 3d. For an up-to-date and well-equipped psycho-pathological ward.
- 4th. The more thorough segregation of tubercular patients.
- 5th. General dining room.
- 6th. X-ray and electrical apparatus.
- 7th. Women's hydro-therapy.

THE PELLAGRA WARDS.—It is my opinion that wards of sufficient size should be built to accommodate all pellagra cases which come to the hospital. In this connection it is not necessary to go into the etiology of pellagra further than to say it is the opinion of the management of the State Hospital that pellagra is a communicable disease. In support

of this, I wish to say that within the last twelve months not less than twenty cases have developed in the State Hospital for Nervous Diseases, in patients who have been there not less than three years. Further, it is a fact that all cases of pellagra need not only special attention, but special diet, and should be on a ward where these may be supplied. In this connection I wish to announce that we are attempting to do some original work in the investigation of the etiology of pellagra, both in our laboratory—considering it as an investigation—and on the wards by a dietetic. We are investigating this problem with as open mind as possible, and with the abundant clinical material we have, we feel that we should be able to arrive at some definite conclusion in the course of time.

The infirmary at the present time has not sufficient capacity. However, a great increase in capacity will be made by the conversion of the first floor, which is now used as a storage room, into a ward for sick men, the contour of the ground making this possible. The psycho-pathological ward should be built to accommodate 150 white male patients, 150 white female patients, 50 colored male patients and 50 colored female patients. With the contour of the ground, this arrangement can very readily be made, and have the entrance to both white and colored wards from the ground level without bringing them into contact with each other. This ward would be the receiving ward for all cases and should be properly equipped with up-to-date electro-therapeutic and hydro-therapeutic outfits. Wards of this size would give ample opportunity to thoroughly study and classify all cases as they come in.

I wish to say that our present troubles come, largely, from overcrowding. Dormitories that were originally built for eight now hold from twelve to fifteen; rooms that were built for one bed now contain two; those built for two now contain from three to five. It is true, of course, that the ideas of housing and type of buildings have changed within the last few years, and the future additions to the hospital will be built upon quite different lines from the old buildings, making a more satisfactory and much cheaper arrangement.

THE TUBERCULAR COLONY.—It is my opinion that far advanced cases of tuberculosis

should be cared for in a part of the addition to the infirmary; but in addition to this, a more careful study should be made of incipient cases, and as fast as these are diagnosed they should be cared for in a modification of tent colonies. This, it strikes me, would be quite practicable by careful consideration of the early diagnosis of these cases. Of course, we must remember that the early diagnosis of tuberculosis in insane persons is greatly hampered by the lack of co-operation on the part of the patient.

A GENERAL DINING ROOM.—It is my opinion that a general dining room for all patients who are able to come to it should be built. In working out the plans for improvement, as presented to the last legislature, I thought that the best idea would be to convert the present laundry into a dining room. However, upon more careful consideration and study of the situation, I have arrived at the conclusion that the present laundry can be so equipped and so increased in capacity, by use of space that has heretofore been unused, as to make it thoroughly practicable to use it as a laundry for many years to come. I would suggest as an improvement in the future that a general dining room be built for the patients, according to the definitely worked out plans, as I believe that the central dining room is a most decisive factor in the economical and scientific feeding of patients. The decisive factor in recommending that the present laundry be converted into a general dining room, was the fact that its situation was central, convenient to the kitchen, and that it is possible to convert it into a dining room that will seat over one thousand persons at one time. A careful study of the situation, however, has shown us that we can convert this into a modern, satisfactory and up-to-date laundry with the expenditure of a reasonable amount of money. There yet remains the problem of a central dining room, and we believe that we will be able to present to the next legislature the plans of a general dining room which will be wholly satisfactory and economical.

X-RAY AND ELECTRICAL APPARATUS.—At the present time there is not in the State Hospital for Nervous Diseases a single piece of electro-therapeutic apparatus, nor has there ever been, so far as I have been able to find out. Just exactly how one would make a

diagnosis in many neurological cases without electrical apparatus, I do not know. Suffice it to say that within the next ninety days we expect to have installed in the institution three complete sets of diagnostic and treatment electrical apparatus. It really becomes almost ludicrous, if it were not for the tragic element, to think of attempting to make a neurological diagnosis without being able to test the muscle reflexes and perform other tests that can be made only by electricity. In addition to this, we expect to install and maintain an up-to-date *x-ray* machine, in order, especially, that we may study the gastro-intestinal conditions of many who are here.

The legislature of 1915 appropriated ten thousand dollars for the installation of a hydro-therapeutic outfit for women, and other equipment. The hydro-therapy and electro-therapy treatment of nervous and mental diseases is considered by all authorities to be the best obtainable, and I am sure that results obtained will justify the expenditure of this money. Even a casual visit through the male wards where they have a hydro-therapeutic equipment, followed by a visit through the female wards where they have no hydro-therapeutic, should convince anyone of the enormous necessity for this installation. I wish to drop a suggestion here as to my opinion for the future good of the state in the handling of its unfortunates; that is, that the state should buy a comfortable, equipped and good farm where the epileptics and developmental defects could be cared for. In the State Hospital for Nervous Diseases there are probably one hundred and fifty or more of each sex who could be handled under those conditions, and be self-supporting to their own advantage. As the institution is now situated, it is impossible for us to make them self-supporting, and they will throughout their lives remain a charge upon the state. Not only would it be good for the state, but it would be of great advantage to the patient.

To state the matter in a few words, I would only say that we intend that the next year shall put the diagnostic and therapeutic equipment of the State Hospital upon the high plane occupied by many other institutions. We believe that the unfortunates of the state are entitled to the best that we can get, and that the best is not, necessarily, the most expensive, and we believe that we will be able

to meet all the demands of modern medicine in a very satisfactory manner.

In conclusion, I wish to say that, while matters at the State Hospital for Nervous Diseases are probably in much better shape at the present time than they have been in times past, or than they are now in some state institutions, yet they are far from ideal, and the lines of thought that I am throwing out at the present time will be good things for you to work on with your legislators two years hence. To show you the extreme ignorance that exists among legislators, I will say that when I was working in the legislature just before its adjournment, for two pavilions for pellagra, one for females and one for males, that one of the battle axe brigade stated that he was willing to vote for the appropriation for one pavilion, but not for two, and further stated that he thought it was gross mismanagement on the part of the institution if they could not handle both male and female in the same ward. He so far showed his ignorance as to admit that he had never been upon the hospital grounds and had no idea as to the plans of the management and could not realize that insane men and insane women could not be put together in the same ward.

I further wish to say that the present board is showing an inclination to get at the problems of the institution in a businesslike manner, and every member is helping the superintendent to work out the problems that confront him, and we believe that with the spirit of co-operation now existing, that we will be able to "get by" with the problems that will confront us for the next two years. In this connection I wish to say that the legislature of two years ago increased the capacity 400 beds; the legislature this winter increased the capacity about 250 beds. However, by careful work upon the part of the management, we hope to be able to receive all that apply for admission within the next two years.

URTICARIA.—Hypodermic or intramuscular injections of 8 minims of 1:1000 adrenalin solution have dissipated urticarial wheals and stopped the itching in less than half an hour.

A VALUABLE CARMINATIVE.—Oil of cajuput is one of the least used, and yet one of the most efficient carminatives.—Medical World.

DIAGNOSIS AND TREATMENT OF INCIPIENT TUBERCULOSIS.*

S. J. Wolferman, M. D.,
Fort Smith.

You all have, no doubt, been duly impressed with the dearth of literature presented in the last two years, how surgery with its various methods of producing artificial pneumothorax, has at last produced a "lung-splint" and thereby a wonderful aid in the treatment of tuberculosis. Other recommendations for treatment have come; some, in fact most of them, have gone. Every one is anxious to decrease the prevalence and spread of tuberculosis. The subject is enormous. Different views are held as to methods. Permit me to quote you one short paragraph—

"A tree stood alone, surrounded by high and low hills;

It could be observed from each elevation.

And it appeared different from each elevation.

The tree was the same, only the point of view differed."

Everything depends upon the point of view.

And so, though many men take the view of the tuberculosis situation, to direct the work of treatment for prevention, I believe much more can be done—by directing this same energy toward early diagnosis. True, those that have tuberculosis must be treated, if possible, to a cure. Their hygiene must be properly cared for, so that the tubercular germs are not disseminated. But if that same man had been diagnosed in the incipient stage, and then properly treated, he wouldn't have any tubercular germs in his sputum to disseminate. By diagnosing the case in its incipency, you not only cure your patient, but you abolish, or at least shorten, that time during which the sputum contains the tubercle bacilli, thereby reducing the dissemination and directly in proportion reduce the exposures.

To urge you to make the diagnosis early, to review with you the diagnostic features, and to systematize this examination so that it is practical for the busiest general practitioner—these are my objects.

True, the tubercular patient is here and must be treated, and rightly so, with all the modern procedures we have; but, at the same time, the inevitable point of prevention lies with the practitioner, most frequently the family physician. He sees the case in its earliest stage, even at a time when the most proficient diagnostitian would be unable to make the diagnosis. But he is also the man, who through lack of time passes quickly over the slight recurring cold, slight cough, and so-called chronic malaria, writes a prescription or two, and then some months later when more serious symptoms arouse his attention, he then, upon a careful examination, finds a well-defined tubercular process, usually past its incipency. It is with regret that most all of us will admit having treated cases which later were shown to have positive tubercular sputa and practically hopeless, which cases, if we could have diagnosed in an incipient stage, would have been treated to a recovery.

I admit freely that the absolute early diagnosis of tuberculosis in this day and age of medicine is merely a goal toward which we must all strive, yet by constant effort we come proportionally nearer our goal.

To make this effort easy, to reduce the error of oversight to a minimum, to make it practical, even for the busiest doctor, three main factors are essential:

1. By taking from each patient a history, brief, accurate, and in logical sequence.
2. By giving each patient a complete, careful physical examination.
3. By the aid of simpler laboratory methods.

We are inclined to neglect our history. I state without fear of proof to the contrary, that all cases of tuberculosis first consult a physician for a "cold," and every patient who comes to you complaining of "catching cold easily and frequently" is a tubercular suspect. Frequently a history of minor gastric troubles is suspicious, as the vagus going to the lungs is sympathetic with the stomach innervation and is reflexly affected. One of the most important history suggestions, upon which too little stress is laid, is a dull, aching pain between the scapulae. This symptom is most suspicious, and while physician on the St. Louis Municipal Tuberculosis Clinic, it was obtained in half of the incipient cases and

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

in even a greater percentage, in those cases with positive sputa. The remaining history corresponds to the well-known form—increasing languor, pallor, shortness of breath on exertion, indigestion, pleuritic pain, and a temperature subnormal in the morning and a slight rise in the afternoon, etc.

Every acute cold, every cough, every cachexia, every old chronic malaria, and last, but not least, every gastric complaint is entitled to a complete and careful physical examination of the chest.

First is inspection which in incipient cases shows you very little, possibly a slight lagging or decreased expansion on the affected side, usually the infraclavicular space, or rarely a slight flattening in this area.

Palpation probably shows you less, always remembering that normally fremitus is slightly increased on the right side.

Percussion showing small areas of consolidation is extremely difficult. The percussion stroke must be regular and extremely light, as heavy percussion carries through to the surrounding resonant areas. Any large degree of impaired resonance is usually a later sign. This has one exception, occasionally an area of relative dullness is found without any other physical findings, but with characteristic clinical signs present. No doubt this is an old incipient case which nature has handled well and kept in the incipient stage, and if we could get deep into the center of that area we would find rales and caseous parts which are now hidden by a surrounded consolidated area. Post mortem bear out this interpretation.

The main feature is auscultation, and it is the fine crepitant rales at the end of inspiration or the end of inspiration following a cough that you listen for. To pick up these rales in a chest takes practice. It means constant use with your stethoscope, going over many normal chests so that your ear is trained to detect the abnormal. As the normal breath-sound differs in each individual chest, it is an excellent plan to always first place the stethoscope in the axilla upon a line level with the nipple. This area, if not involved, gives you the best knowledge of the normal breath-sound of that individual chest. The apices, most often the right, and the infraclavicular regions are the most frequent sites involved and showing these rales, nevertheless they are also quite often found in the

interseapular area opposite the spine and high in the axilla.

But every rale is not tubercular. It has been our custom, in order to try to distinguish the cause of these rales, to follow this routine. A unilateral group of rales is very suspicious, still they might be found in a benign bronchitis or accompanying a simple acute cold. The findings are carefully recorded and the patient told to return in ten days. If these rales still persist at that time and any of the clinical signs are present, that patient is an incipient case, even though the sputum be repeatedly found negative to the tubercle bacillus. Following the statement of Dr. S. G. Bonney that "persisting, sharply localized, unilateral rales may be regarded as pathognomonic of tuberculosis," I make the diagnosis fearlessly, for it has often been my sorrow to see patients so diagnosed, who neglected their treatment, and to have examined them again six months later and find the lung findings much more marked and the sputum containing the tubercle bacilli.

Beside these fine, crackling rales, most often of a moist character, the next most frequent finding is the prolonged expiratory murmur with or without the harsh inspiratory sound; remembering that in the normal chest the expiratory sound is barely audible. Another most important and suggestive sign is the interrupted or cog-wheel inspiratory note, and if constant even in the absence of rales, is very suspicious. Again, breath-sounds of the infant's chest are normally vesicular in type; in the adult they are bronchial. Therefore, if you hear vesicular breath-sounds in the adult, and you frequently will, they must signify trouble.

I cannot refrain here from mentioning a most frequent condition found in children and occasionally in adults. The patient complains of the general clinical symptoms of incipient tuberculosis as previously stated, and upon examination of the chest you find only the distant cog-wheel inspiration. He has a slight hacking cough which seems high, and no expectoration. The confirmatory sign, "the Eutace Smith head retraction murmur," completes the picture. This most important sign is elicited with the head and neck in extreme retraction, the diagnostic murmur is that which is heard in the first left intercostal space near the manubrium.

Gentlemen, that is the picture of an infection of the mediastinal glands, most often tubercular, and if the case is not immediately put on the routine tuberculosis treatment, he will in the course of six to ten months show positive lung findings.

Whenever possible, it is advisable to aid all chest diagnosis with an x-ray picture. Early incipient cases do not show consolidated areas, but it will often surprise you to see the great amount of real involvement with so small amount of clinical findings and symptoms. Mediastinal glands always show in a good x-ray plate. It takes a good picture and good interpretation in this work.

These complete the physical signs of the incipient case. Those of the advanced cases are not pertinent to this discussion.

The incipient case has few real symptoms. The pulse rate is usually slightly increased and there may be a slight decrease in blood pressure, each when present being significant. The respiratory rate is practically normal or slightly increased. There is slight dyspnoea on exertion. The temperature is normal or subnormal in the morning, with a slight rise in the afternoon. There may be mild night sweats, but not the drenching kind so common in the advanced cases. There is usually slight loss of weight and strength. The patient has a feeling of overexertion, and looks tired. He usually says he has no cough, though close questioning reveals a slight hacking cough most noticeable upon arising in the morning.

Incipient cases have little or no sputum. If the case has sputum containing the tubercle bacilli, many authorities believe that the case is past the incipient stage, though still able to respond readily and rapidly to treatment. In the past few years, due to a greater field of work, the Von Pirquet test has again come into its own. Under nine years of age, a positive Von Pirquet is practically an absolute sign of tuberculosis. From nine to eighteen it is very suspicious. In adults we find it positive in probably 60 per cent, because it is so sensitive that those old healed tubercular foci, so frequently found at post mortems, death due to other causes, will give the test. But in spite of this, if in an adult the local reaction is marked, the patient has a general systemic reaction, as they frequently do, or small papules appear around the site of inoculation, then the test is positive for active tuberculosis.

The blood picture shows little or no change, occasionally a picture resembling secondary chlorotic anemia. Usually the white cell count is normal, though at rare intervals you will find an occasional leucopenia, or possibly a relative lymphocytosis.

TREATMENT.—The treatment of tuberculosis is so extensive and so varied that its discussion from the phase of any one individual is worthless. It is therefore purposely avoided. When a case of tuberculosis is diagnosed in a family and children in that family give the slightest suggestion of a Von Pirquet, they should be sent to an open air school if possible, the adults to open air camps.

One point so often neglected in the treatment of tuberculosis, and especially incipient cases, is the nose and throat. Incipient cases invariably have abnormalities of the upper air passages, spurs, deflected septi or enlarged turbinates, and it is *absolutely essential* that these be treated or removed in order to get the best air supply to the lungs. A good nose and throat man should examine each and every case. Digestive and respiratory symptoms are treated symptomatically. The food should be palatable, not too rich and not too much at any one time. Tuberculin may or may not be used. Personally, I believe cases do as well without it as with, nevertheless, when properly used it is harmless and worthy of trial.

Sufficient is it, then, for the treatment that whether it is rest, fresh air, good diet, moderate exercise, tuberculin, the disinfectants, the expectorants or the encapsulators, their intelligent use and combination gives curative results in incipient cases.

You have no doubt noticed that nothing I have said is new, nothing is a positive sign. There is nothing new, there is *nothing positive*, in true incipient tuberculosis. It is always a matter of opinion, but one developed through carefulness, practice and the sorrows of seeing doubtful cases return later with tubercle bacilli in the sputum.

It is the duty of each physician to help educate the public, whether it be by office consultation, public lectures, display or even the moving pictures, the *way* matters not.

It is also his duty wherever a case of tuberculosis is diagnosed in a family, to rigidly and thoroughly examine all members of the family for suspicious signs of incipient cases. In

these cases, especially in the children of the family, the Von Pirquet test is supreme.

To eliminate this disease or any disease we must try and control the existing cases. This done properly and scientifically will prevent the development of future cases. By careful and early diagnosis, the earlier are these cases controlled, the greater number are our cures, and consequently the smaller is our work of prevention. And so I appeal to you all, especially to the men of general practice, to be on the lookout for these cases. Record their histories, make repeated physical examinations of the chest, and make the simple but reliable Von Pirquet test, so that it will not be necessary to say to our patients: Yes, you have tuberculosis and will probably live eight or ten months. Rather let us say: Yes, you have an incipient tuberculosis, but by careful living, diet and hygiene upon your part, and an extremely small amount of medicine upon my part, you will recover.

AN ABSCESS OF THE UMBILICAL VEIN.*

By E. E. Barlow, M. D.,
Dermott.

Patient, male; white, age forty, married, has two healthy children. Denies any venereal disease. Has had measles and mumps, but has not had any of the acute infectious diseases. At the age of fifteen he began to have sporadic attacks of pain, cramping in character, very severe at times and coming on almost always at night, after retiring. These attacks as a rule were of short duration, and two or three days after he recovered from an attack of pain he was apparently perfectly well again until the next spell came on.

Present trouble began on the evening of January 14, two or three hours after supper, with severe pain involving the whole right abdomen. (The pain was so severe that it caused him to draw his knees up and his head down between them, and at the same time cry out.) He had no chill and was not jaundiced. His temperature was 101. He was nauseated and vomited once. He had taken a dose of Epsom salts, which had not acted.

They called the family physician, Dr. E. C. McGehee, who went over him very thoroughly,

and made a diagnosis of acute infection of the gall-bladder. He then gave him a quarter of a grain of morphin hypodermically, which failed to relieve him, and chloroform was resorted to by inhalation for relief. An enema of suds was given without results; later an enema of Epsom salts was given, which gave a free movement. Nothing gave permanent relief and the patient had a stormy night.

Dr. McGehee called me the next morning to see the case with him. At this time the temperature was 100. The whole abdomen was distended. The acute pain was subsiding and the area of tenderness was localizing between the umbilicus and the liver. He was sensitive under the right costal arch. He could not breath with my hand pressed beneath the arch, and upon perpendicular pressure over the gall-bladder he had severe pain. He was not sensitive in any other position with the first percussion.

In making a differentiation between lesions that occur in this position you have to consider, first, the gall-bladder; second, stones in the kidney; third, the appendix; and fourth, acute ulcers of the duodenum and stomach. We ruled out acute ulcers of the duodenum and stomach first, because they rarely ever cause the sever type of pain that was present in this case; second, the absence of gas eructations; third, there was no hematemesis, or the passing of blood in the stools.

We ruled out the appendix, because the temperature came with or before the pain, and in a few hours after the onset there was no pain in the lower right abdomen, but was localizing in the upper right quadrant. (I did not get a blood analysis of this case, which I regret very much, as it is a valuable aid in diagnosing lesions of this character.)

We ruled out stone in the kidney, because the urinary findings were negative; there was no blood in the urine, and there was no pain on fist percussion.

This brings us up to the consideration of the gall-bladder. Taking the history of recurrent attacks, the severity of the pain, together with its character, not colicky, but intense and persistent, is a point which speaks strongly in favor of the diagnosis of a recurring infection of the gall-bladder. Again, the severe pain produced by the hammer-stroke percussion over the gall-bladder is indicative of an inflammation or a retention in the biliary tract.

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

Upon the above history and physical examination, I confirmed Dr. McGehee's diagnosis, and advised an operation. The patient did not consent to this until a week later, when he was sent to the hospital and prepared for operation.

The usual incision for approaching the gall-bladder was made. As we opened the peritoneum, we entered an abscess which I thought was the gall-bladder. Exploration with my finger disclosed the fact that it was not the gall bladder, but a well-walled-off abscess, containing about an ounce and a half of pus, which was shaped like the bottle gourd, the larger portion pointing toward the umbilicus, the smaller or handle-like extending into the fissure of the liver. This was firmly adhered to the abdominal wall, to the upper border of the liver above the gall-bladder, and to the hepatic flexure of the colon.

After having dissected it from these attachments, it was still anchored to the fissure of the liver by the handle-like portion of the sack, which proved to be the umbilical vein, that was patulous within an inch of its bifurcation. This was ligated above the patulous portion and removed.

The stomach, duodenum, pancreas, gall-bladder and its ducts were examined and found to be normal. That portion of the hepatic flexure that was adhered to the sack was in rather bad condition. In the presence of infection I did not feel justified in attempting to do much in the way of repair to this bowel. There was no evidence of an ulcer at this point, the damage being due to the extensive dissection. I placed a large coffer dam drain between the liver and the intestines. This was removed on the fifth day, after having done its work well. Two days later a fecal fistula appeared, which discharged for five or six days and closed.

The patient made an uneventful recovery and is apparently well. As we all know, fetal life ceases to exist at the termination of labor. This formation or fragment usually remains passive through life; but since birth by some unknown cause become infected. I reported this case to the Mayos, Murphy, Kelley, and Holland. They all wrote me they had never seen anything like it. Dr. Murphy had the literature searched for me, but was unsuccessful in finding a parallel case.

POSTERIOR DEVIATIONS OF THE UTERUS.*

By W. B. Center, M. D.,
Garland.

It was believed at one time that all pelvic troubles were due to prolapse of the uterus. Later on Reemier and Lisfranc changed the tide of belief and advocated the idea that these troubles were largely due to ulceration. With Velpeau, on the contrary, this belief was continued until Gosselin advocated metritis as being an important factor. The science continued to become more analytic and the tendency grew to place each case in its proper place and many new elements were introduced, which prior to that time had been entirely ignored, which resulted from pathological conditions of the appendages.

Displacements of the uterus are rarely the cause of symptoms unless accompanied by some other pelvic disorder. We can all recall numbers of cases of marked displacements which caused no symptoms whatever. However, the abnormal position of the uterus causes a congested condition of the organ and all its adnexa, and makes the pelvis very susceptible to disease.

Posterior deviations are far more frequent than forward deviations. About 15 to 18 per cent of all cases of displacements are of the posterior variety.

A number of factors enter into the causation of posterior displacements. Every time the bladder is distended the uterus is placed in a state of retroversion. This is a physiological procedure. The muscular tissues of the broad and round ligaments together with the utero-sacral ligaments under ordinary conditions hold the uterus in its normal position; but when the uterus increases in weight from any cause, especially inflammatory conditions and subinvolutions, the ligaments become stretched and the continuous weight on these structures lessens their tonicity and they soon lose their function. When the uterus or any of the adnexa become the seat of inflammation the process may extend into the cellular tissues surrounding the uterus and the uterus becomes fixed in this new position in this

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

manner. Sudden falls and heavy lifting are frequent factors.

Retroflexion is more common than retroversion. It seldom occurs in childhood. The condition in the majority of cases is due to metritis of puerperal origin. The broad and round ligaments lose their tonicity and the more resistant utero-sacral ligaments hold the cervix in its proper place. The use of the abdominal binder together with a weakened pelvic floor by lacerations is a frequent cause, and I believe the old habit of the forced dorsal position during the lying-in period causes a stretching of the ligaments and leads to their weakening. Tumors pull the uterus down and backward and push it into retroverted positions, and any increase in intra-abdominal pressure may result in retro-displacements. Recal impaction may push the cervix forward and undue distension of the bladder may push the fundus backward, causing by combined effort the condition of retro-flexion.

As to symptoms of posterior displacements I cannot say positively whether there are any or not—in an uncomplicated case. Some authorities claim that an uncomplicated case presents no symptoms, while others claim that they find symptoms where there is nothing else to cause the symptoms. Personally, I believe that symptoms are due to complication in a great majority of the cases. There must be some trouble, it is true, to bring the woman into your care. If there were no symptoms, the woman would not become a patient. I have never had a patient that I remember who complained of any symptoms who did not have other troubles sufficient to have produced the symptoms complained of.

The common routine of symptoms complained of are: Feelings of discomfort in the pelvis, such as bearing or pulling down; pains in the back; constipation, or rather obstipation; at times they will complain of difficulty in defecation and attribute this to "piles." Reflex nervous symptoms, sometimes a hemiplegia, neurasthenia, pains in the limbs, headache, digestive disturbances; menstrual disturbances of all kinds may be present. In severe cases where associated with endometritis, as is commonly the case, there are often attacks of menorrhagia or metrorrhagia. Leukorrhea is usually present. One prominent feature in the symptomatology is sterility. This is often the one and only cause of the

patient's first visit. There are usually complications before this time, however.

The pathology of the condition is principally that of the complications, with the exception of the displacement itself, with flaccidity of the ligaments. At the time that we see the case there are usually peritoneal adhesions. The fundus is bound down in the hollow of the sacrum, the tubes and ovaries are often drawn down with the uterus. Salpingitis often coexists, and in some of the irreducible cases this is due to the adhesions between the adnexa and the pelvic walls. The adhesions continue to grow more and more dense as time goes on, due to the frequent exacerbations of the salpingitis. It is claimed by some that the severe nervous symptoms so frequently met with are due to compression of the sacral plexus, while others claim that it is due to the dragging upon the nerves that cause the symptoms.

The diagnosis can readily be made by bimanual palpation. The cervix is found to be in its normal position or it may be found to be lower down in the pelvis than common. On pressing down with the hand on the abdomen the two hands can be brought together, showing that the uterus is not in its proper place. Then by pressing backward you can follow the fundus on back to the hollow of the sacrum. The uterine sound used to be employed for the purpose of making the diagnosis, but its use should be discarded, as it is not needed and is at times harmful.

Treatment of this condition may be classed as palliative and operative. The palliative measures consist in the use of pessaries or tampons, vaginal douches, etc. These are of value in light cases, but in almost all cases of sufficient severity to come under our observation these measures are of no avail only in those cases where they will not submit to operation.

The operative treatments of retro-deviations are numerous and all the operations have their advocates. Alexander's operation is the one of choice in cases where there are no adhesions and where the ovaries and appendages are normal, but the cases where these facts can be positively ascertained are so few that I believe that where we do not know positively that everything is all right, we should take the abdominal route.

Before any of the operations are performed, all causes should be removed or corrected. All perineal lacerations should be repaired, cervix repaired if lacerated; if endometritis exists, the uterus should be curetted. These can all be done just before the abdomen is opened, and avoid giving more than one anesthetic.

After all the visible causes are corrected the operation devised by Dr. J. M. Baldy is the operation I consider the best. The abdomen is opened and after passing through the peritoneum a pair of dressing forceps are pushed through the broad ligament close to the side of the uterus. The round ligament is grasped and pulled through the broad ligament. Both round ligaments are brought through in the same manner, and brought together at the median line. Then by a single suture of braided silk the double ends of the ligaments are united. A suture is then taken midway between the union and the opening in the broad ligament, fastening the ligaments to the uterus. This operation elevates the uterus and also the adnexa and holds the fundus forward. The round ligaments form a support for the tubes and ovaries.

I do not believe this operation will interfere with pregnancy more than the shortening of the ligaments as done in Alexander's operation.

In 1886 Kelly reported an operation for this trouble which is now called ventral suspension. The object of this operation is to form a permanent cord suspending the uterus from the abdominal wall. The operation has been revised a number of times, and by those who have employed this technique it is claimed to be a success. The suspension suture is passed through the peritoneum and subperitoneal tissues only, and transfixing the fundus a little on its posterior aspect and keep it in a slightly anteflexed position. The intra-abdominal pressure gradually lengthens the band and the uterus finally fixes itself in a comfortable position.

During September the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Nonofficial Remedies:

Cutter Laboratory:

ANTI-PNEUMOCOCCI SERUM: Syringes, 10 c.c.

DIPHTHERIA ANTITOXIN GLOBULIN: Syringes, 2,000, 3,000, 4,000, 5,000 and 10,000 units each.

NORMAL SERUM (FROM THE HORSE): Syringes, 10 c.c.

TETANUS ANTITOXIN: Syringes, 10 c.c.

Hoffman-LaRoche Chemical Works:

IMIDO, ROCHE: Ampules Imido Roche.

H. K. Mulford Co.:

MERCURIALIZED SERUM, MULFORD: Mercurialized Serum Nos. 1, 2, 3, 4, 5, 6.

Schieffelin & Co.:

RADIO-REM: Outfit No. 4.

Standard Oil Co. of California:

CALOL LIQUID PETROLATUM, HEAVY.

Morgenstern & Co.:

The Council has recognized Morgenstern & Co. as selling agents for Dolomol and the Dolomol preparations in New and Nonofficial Remedies. The Council is assured that these preparations will be marketed in accordance with its rules.

White Chemical Co.:

The Council has recognized the White Chemical Co. as selling agent for Apinol. The Council is assured that this preparation will be marketed in accordance with its rules.

BRITTLE AND CRACKLING NAILS sometimes may be an indication of a minor thyroid insufficiency.

UTERINE FIBROIDS.—Mammary extract 5 or 10 grains, t. i. d., for two or three months.

AMENORRHEA IN GIRLS sometimes responds well to total pituitary substance, one or two grains three times a day.

CHRONIC RHEUMATISM.—Certain forms of rheumatism are benefited by $1\frac{1}{2}$ to 3 grains of thyroid extract daily in divided doses. The therapeutic test shows which cases respond.—American Medicine.

THE JOURNAL

OF THE

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ANONYMOUS COMMUNICATIONS.

Anonymous communications will not appear in the columns of this Journal, no matter how meritorious they may be.

Editorials.

MEDICAL DISCOVERIES, NOT CORRELATED INVESTIGATIONS, CONQUER DISEASE.

The victories which medical science has won over disease have in very few instances, if ever, been decided by a lucky chance. Only by utilizing the accumulated knowledge of centuries and all the information available from his contemporaries, has the investigator been enabled to make significant discoveries leading to the cure or prevention of disease.

Contributions to the medical science of today come from the most diverse sources. The physical chemist determines one fact, the pathologist another; the economist and a host of other specialists make and record their observations and the interpretations which they place upon them. These discoveries must stand trial at the hands of contemporary workers along the same lines. If they stand the test, they become incorporated into a working hypothesis to be applied practically until new discoveries show it to be false in fact or interpretation, or place it in a new light where its application may be different.

Thus, in the case of the disease which we know as malaria (meaning "bad air"), the original observations that the disease pre-

vailed in swampy regions, and tended to die out when the region was cultivated and improved, have stood the test of time and still stand as facts. The interpretation, however, that the disease was due to poisonous air arising from the swamps, has been totally disproved. The fact is now well established that malaria is carried by certain mosquitoes which breed in the swamps. Preventive measures based on this fact are, therefore, definite and purposive, and are being widely and successfully employed.

The literature in which observations bearing on medical subjects are reported and threshed out is of such enormous volume that no one mind can compass it. Even with the aid of periodicals which attempt to collect and classify this literature in the form of abstracts, the worker in one single little branch of a medical specialty is hard pushed to keep abreast of his subject. It is like a fusillade of bullets directed against our common enemy, "Disease." If many a bullet misses the mark, it is nevertheless true that now and then some do hit it squarely. Disease is slowly but surely being pushed back from trench to trench, and ultimate victory is only a matter of time, perseverance and concerted action.

THE BY-PRODUCT OF THE HARRISON LAW.

The Harrison Narcotic Law has now been in force six months, and some of its by-products are becoming apparent. One of the unexpected developments is the attitude of the osteopaths toward the law. Osteopathy, as is generally known, originated in the dreams of a country doctor in Missouri, about a quarter of a century ago. It is based, according to its founder and prophet, on the following propositions: The human body is a machine; disease is due to the dislocation of some structure in the body; the treatment of any abnormal condition is to find the dislocated structure and restore it to its proper position. None of the statements is true as a generalization, yet each one has in it a grain of truth, just enough to enable the ignorant and enthusiastic disciple to make out a case to a receptive listener. But the real reason for the temporary vogue of osteopathy is the accidental fact that this cult arose just at the time when the advance of scientific knowledge re-

garding disease was demonstrating the falsity of many of our previous ideas regarding drugs and their value. "The public," says The Journal of the American Medical Association, "catching this spirit from the medical profession, began to waver in its allegiance to powders and pills, and so was psychologically receptive to the claim of the osteopath that his 'system' was a drugless one, that drugs were not only of no value in the treatment of disease, but also were responsible for most of the human ills. In addition to osteopathy, a countless succession of other freak sects made capital out of this 'drugless healing' cry. In each state the advocates of osteopathy appeared before the legislature and demanded the passage of a law which would 'recognize osteopathy' as a drugless system of treatment, something entirely apart and distinct from the practice of medicine. This was the basis on which they were given separate laws, boards and standards, and this is the only ground on which they could be so recognized. The Harrison law provides for the registration of physicians, as a means of restricting the use of certain drugs to legitimate purposes. In several states the osteopath has demanded the right to register under this law, regulating the use of drugs which, according to his own teachings, he never uses and does not believe in. 'For,' he says, 'am I not a physician with all the rights and privileges of one?' To the ordinary mind, it would seem clear that the osteopath either is or is not a physician. If he is, then he is subject to the provisions of the Medical Practice Act, and should be required to conform to its educational requirements. If he is not, then he is not qualified to register as a physician or to perform any of the legal functions of a physician, least of all the dispensing or prescribing of powerful drugs, the use of which is directly opposed to osteopathic teachings."

DEFENDING THE GREAT AMERICAN FRAUD.

"Most of the fellows and members of the American Medical Association are aware of the fact that the Chattanooga Medicine Company and its chief owner, John A. Patten, manufacturers of Wine of Cardui, have sued (1) the American Medical Association and the editor of The Journal for \$300,000, (2) Dr.

Oscar Dowling, president of the Louisiana State Board of Health, for \$25,000, and (3) Harper's Weekly for \$200,000. Comparatively few realize, however, that the "patent medicine" interests of the country are spending money lavishly in a desperate effort to win a suit on whose outcome, they consider, depends the very life of the nostrum business. We have, at different times, given our readers an insight into some of the methods pursued in this case, especially in connection with the employment of detectives for the apparent purpose of manufacturing "evidence." The Journal of the American Medical Association calls attention to an interesting article in the October 2 issue of Harper's Weekly, wherein are described the activities of some of the horde of detectives employed in this case. We suggest that physicians who have the interest of the public health and the medical profession at heart to buy a copy of this issue of Harper's. Under the title, "Patten in Pink Whiskers," the story gives in detail the experience of "Operative No. 48," a detective who threw up his job in disgust at the work he was expected to do for the "patent medicine" interests. How the private papers of the secretary of the Limestone County Medical Society were ransacked; how the minutes of that society were purloined and copied; how the Chattanooga pastor was dogged by detectives and private conversations taken down in shorthand by stenographers hidden from view—these are some of the things described by "Operative No. 48" in the Harper article. Read in connection with The Journal's articles on the Wine of Cardui case, it gives a very good idea of the methods to which the "patent medicine" interests will descend in their attempt to discredit the medical profession and to protect their noisome brood.

Those in the past who have built up huge fortunes by swindling the sick, sense the downfall of their business that is bound to follow the publicity that has been given it by the American Medical Association and other agencies. Really, the Wine of Cardui cases are not simply "Chattanooga Medicine Company vs. The American Medical Association, Oscar Dowling and Harper's Weekly; they are "The Great American Fraud vs. The Medical Profession and the Public."

UBIQUITY OF THE DIPH'THERIA BACILLUS.

WIDESPREAD PREVALENCE OF THIS GERM AMONG
UNSUSPECTING PERSONS, AS SHOWN IN A
RECENT PUBLICATION OF THE U. S.
PUBLIC HEALTH SERVICE.

It has long been known that diphtheria germs are present in the throats of many perfectly healthy persons and that many cases of this disease may be accounted for only by their infection from such "carriers." To what extent these germs occur among healthy persons has been a point that has never been definitely determined, some workers claiming that as many as one in every twenty persons carried these germs and distributed them more or less indiscriminately. To determine this point the United States Health Service conducted an investigation of the prevalence of diphtheria carriers in the city of Detroit during the winter of 1913-14. This investigation stands as one of the most thorough and painstaking researches of its kind.

Should this report be read by all of the inhabitants of Detroit, over four thousand of them would recall the visit of the "health officer" who examined their noses and throats and took "cultures" from both locations.

In the laboratory the officers of the service examined the 8,758 cultures taken from 4,093 persons; five bacteriologists examined the "smears" from an average of 158 cultures a day. The results of this examination were that very nearly one per cent—.928 per cent, to be exact—of all the persons examined was found to carry diphtheria germs in their throat or nose, or both.

One per cent does not ordinarily sound large to the average person, but let us see what it means to the individual. In time of epidemic prevalence probably one in every hundred persons he meets has diphtheria germs in his throat, and in all probability on his hands and clothes as well, since it is one of the most common practices in the world to put the hand to the mouth. It is probable that the average individual comes in contact with a hundred or more persons every day, and is hence practically daily exposed to infection with diphtheria. Some persons, mainly those remaining at home, associate with but few, but other members of the household are not so isolated. School children come in close contact often with more than

a hundred others in a day. Occasionally one may even see a hundred persons on a single street car and none will doubt that many more than that number will cough into the air of a moving picture theater during an evening.

To demonstrate further what one per cent means, let us see what are the actual figures. In 1914 the official census of Detroit was 537,650. One per cent of this is 5,376. It would be difficult indeed for anyone living in Detroit to avoid contact with one, two, five or more of these 5,376 disseminators of diphtheria germs. Nor is there reason to believe that in time of epidemic the figures for any other large community are lower in proportion.

These data gathered by the Public Health Service, as well as data of the same nature obtained by other workers, demonstrate one of many reasons for personal care of the throat and nose, avoidance of too intimate contact with others, and the necessity of early preventive measures in the case of those suffering from "sore throat" and lesions suspicious of diphtheria.

Editorial Clippings.

NEW JERSEY IN LINE.

We congratulate the Medical Association of New Jersey and its journal and felicitate organized medicine upon the addition of another journal to the membership of the Co-operative Medical Advertising Bureau. Beginning with the September issue, The Journal of the Medical Society of New Jersey has eliminated all objectionable advertising and can now present to the members of that organization a periodical that reflects the ideals of organized medicine in every department of the work. Commenting on this change, the New Jersey Journal says: "The Publication Committee points with pride to the achievement in this issue of a step that it sincerely hopes will meet with the approval of the members of the State Society and those advertisers whom the committee have sought to retain on its advertising pages. This action has been fraught with a material loss, but we have replaced the losses by inserting new and less objectionable matter, so that now no nostrums or unethical wares can buy advertising space in this Journal; and that is more impor-

tant to our members than computing the possible financial losses. It means a moral uplift. This action stands for honesty and truth, as the notice on our front cover page points out.

"We invite you to carefully examine our advertising pages now and in the future, first, to assure yourself that you will find them as carefully edited as the reading pages, and second, to fix in your thoughts the names and items advertised, always mindful of the fact that these are the firms who by their support are paying the bills of this publication; and when in need of their wares, please do not forget this fact. And even when not actually buying, help your Journal by encouraging the advertisers by telling them that you saw their notices in *The Journal*.

"Start now! Read the advertisements in this issue."

The Journal is edited by Dr. D. C. English of New Brunswick, New Jersey, and ranks among the best publications owned and controlled by state associations.

We welcome this influential factor to the list of journals conducted on the principles which lie at the foundation of the organized medical profession of this country.—*The Journal of the Missouri State Medical Association*.

Personals and News Items.

Read the advertisements in this issue.

Dr. D. W. Goldstein of Fort Smith visited in Malvern and Little Rock this month.

Dr. Harry D. Bogart of Wheatley has moved to Marianna.

Dr. E. M. Hudson of Little Rock visited in Fort Smith last month.

Dr. R. L. Grant of Texarkana is taking a six-week post-graduate course in the clinics of Chicago and Rochester.

Dr. J. Vincent Falisi of Little Rock is in Chicago doing special work with Dr. John B. Murphy at the Mercy Hospital.

The eighth annual meeting of the Third District Medical Society will be held in Brinkley, November 11-12. Headquarters will be at the Rusher Hotel.

Dr. J. P. Runyan of Little Rock attended the annual meeting of the American Associa-

tion of Obstetricians and Gynecologists in Pittsburg last month.

Physicians visiting in Little Rock during the past month include: E. L. Watson and G. K. Stephens, Newport; M. D. Kelly, Carthage; R. A. Hilton, El Dorado; H. L. Routh, Batavia; R. H. Sherrill, Buckner.

The Iron Mountain and Rock Island railroads have authorized a special rate of \$13.20 from Little Rock to Dallas and return, on account of the Southern Medical Association meeting, November 8 to 11. Tickets will be on sale November 6 and 7, with a return limit extended to about November 20.

The Board of Control of the State Charitable Institutions elected the following Little Rock physicians for the Arkansas Deaf Mute Institute and the Arkansas School for the Blind: Dr. W. T. McCurry, oculist for both institutions; Dr. L. D. Reagan, physician for the School for the Blind; Dr. S. B. Hinkle, physician for the Deaf Mute Institute.

New and Nonofficial Remedies.

Since publication of *New and Nonofficial Remedies*, 1915, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "*New and Non-official Remedies*."

LAROSAN, ROCHE.—Calcium caseinate, containing calcium equivalent to 2.5 per cent calcium oxid. In the treatment of diarrheas of infants a useful food is that made from the curd of milk and diluted buttermilk. The preparation of such a mixture of proper composition being difficult to prepare in a private home, Larosan, Roche, is offered as a substitute. The Hoffman-LaRoche Chemical Works, New York City (*Journal A. M. A.*, September 4, 1915, p. 877).

DESICCATED PINEAL GLAND (ARMOUR).—The pineal gland of normal cattle, freed from connective and other tissues, dried and powdered. There is some evidence that there is a relation between the pineal gland and some processes of development and growth. The therapeutic use of the gland is in the experi-

mental stage. Pineal Gland, Armour, is also supplied as Pineal Gland Tablets, Armour, 1-20 gr. Armour & Co., Chicago (Journal A. M. A., September 25, 1915, p. 1111).

SCOPOLAMINE STABLE, ROCHE.—An aqueous solution of pure scopolamine hydrobromid protected against decomposition by the addition of 10 per cent of mannite. It has the properties of scopolamine hydrobromid, U. S. P. It is supplied in ampules, each containing 1.2 c.c. (1 c.c. contains 0.0003 gm. scopolamine hydrobromid). The Hoffman-LaRoche Chemical Works, New York (Journal A. M. A., September 25, 1915, p. 1111).

COAGULEN, CIBA.—An extract said to be prepared from blood-platelets and to contain thromboplastin substance mixed with lactose, 1 gm. representing 20 gm. dried blood. It is said to act as a hemostatic and to be useful in the treatment of local and certain internal hemorrhages. Solutions of Coagulen, Ciba, are used locally, intramuscularly and intravenously. A. Klipstein & Co., New York (Journal A. M. A., September 25, 1915, p. 1111).

CALOL LIQUID PETROLATUM, HEAVY.—A nonproprietary brand of liquid petrolatum, U. S. P., said to be derived from California petroleum and to consist essentially of hydrocarbons of the naphthene series. It is colorless, nonfluorescent, and practically odorless and tasteless. Its specific gravity is 0.886 to 0.892 at 15 C. Standard Oil Company of California, San Francisco, Cal. (Journal A. M. A., September 25, 1915, p. 1111).

TETANUS ANTITOXIN FOR HUMAN USE.—Marketed in syringes containing 1,500, 3,000 and 5,000 units each. Cutter Laboratory, Berkeley, Cal.

DIPHTHERIA ANTITOXIN, GLOBULIN.—Marketed in syringes containing 2,000, 3,000, 4,000, 5,000 and 10,000 units each. Cutter Laboratory, Berkeley, Cal.

ANTI-PNEUMOCOCCIC SERUM.—Marketed in syringes containing 10 c.c. Cutter Laboratory, Berkeley, Cal.

NORMAL SERUM (from the Horse).—Marketed in syringes containing 10 c.c. Cutter Laboratory, Berkeley, Cal. (Journal A. M. A., September 25, 1915, p. 1111).

Propaganda for Reform.

FILUDINE.—This is a French proprietary sold in this country by George J. Wallau, Inc., New York. It is offered as a remedy for "biliary insufficiency," "hepatic insufficiency," "intestinal dyspepsia," "all infections of the liver (diabetes, cirrhoses, cancer, etc.)," "malaria," "obesity" and "tuberculosis." The statements in regard to the composition of Filudine are unsatisfactory and even contradictory. The Council on Pharmacy and Chemistry reports that Filudine is a mixture of semi-secret composition; that the therapeutic claims are manifestly unwarranted. The name is not indicative of the composition, whatever that may be, and no rational excuse is offered for the combination of liver and spleen extracts (with or without bile extracts) with "thio-methyl arsinat" or "thio-cinnamat" of caffeine (Journal A. M. A., September 18, 1915, p. 1045).

GLOBEOL.—Globeol is sold by George J. Wallau, Inc., along with Urodonal, Jubol and Filudine. The Council on Pharmacy and Chemistry reports that when the description offered by Wallau is divested of obscuring verbiage, Globeol appears to be evaporated horse blood mixed with small quantities of colloid (dialyzed?), iron and manganese and a "dash" of quassia. The Council declared Globeol ineligible for New and Nonofficial Remedies because its composition is semi-secret, because unwarranted therapeutic claims are made for it, and because the asserted combination is irrational (Journal A. M. A., September 18, 1915, p. 1046).

VERLIE GATLIN WRINKLE REMOVER.—The Verlie Gatlin Beauty and Wrinkle Treatment was a Denver mail order concern which promised to remove facial blemishes of all sorts and in other ways to make its customers (dupes) beautiful. A postoffice fraud order has been issued against the promoters of this medical fake (Journal A. M. A., September 18, 1915, p. 1047).

THE HOROWITZ-BEEBE CANCER CURE.—Dr. J. W. Vaughan, Detroit, Mich., protests against the unauthorized use of his name in connection with the Horowitz-Beebe cancer

cure, Autolysin. A private letter written one week after beginning trials with the cure to Dr. Beveridge was made to do service as a testimonial in a lay magazine (Journal A. M. A., September 18, 1915, p. 1048).

STRYCHNINE NOT A CARDIAC TONIC.—As a result of investigations carried out in the Massachusetts General Hospital at Boston, Dr. L. H. Newburgh concludes that there is no pharmacologic or clinical evidence which justifies the use of strychnine in the treatment of acute or chronic heart failure (Journal A. M. A., September 18, 1915, p. 1032).

GRANT'S EPILEPSY CURE.—Fred E. Grant, Kansas City, Mo., sells an "epilepsy cure" on the mail order plan. Analysis in the A. M. A. Chemical Laboratory demonstrated it to be a bromide mixture containing as its essential ingredients about 15.8 gm. potassium bromide and 0.9 gm. sodium bromide per 100 c.c. (Journal A. M. A., September 4, 1915, p. 894).

HYDRAGOGIN.—The Council on Pharmacy and Chemistry reports that Hydragogin (C. Bischoff & Co.), advertised as a "most wonderful diuretic and cardiac tonic," is a shotgun mixture of semi-secret composition, marketed under a therapeutically suggestive name and advertised by means of unwarranted therapeutic claims. Hydragogin is said to be a preparation of digitalis, strophanthus, squill and a saponin. The report explains the objection to the administration of digitalis and strophanthus in fixed proportion because of the varying rates of absorption and excretion of these two drugs. It further cautions that since digitalis bodies must often be given to the point of beginning toxic action in order to obtain the full therapeutic effect, it is obvious that the administration of a mixture of digitalis, strophanthus, saponins and squill is especially liable to induce serious toxic effects which cannot be distinguished from the symptoms of the disease (Journal A. M. A., September 4, 1915, p. 894).

WILLIAMS' SYRUP OF MALT.—The Council on Pharmacy and Chemistry reports that Williams' Syrup of Malt is ineligible for New and Nonofficial Remedies because it is an official article marketed under an unofficial title; because unwarranted therapeutic claims are made for it, and because the claims made are apt to lead the public to depend on it as a

curative agent in serious diseases (Journal A. M. A., September 4, 1915, p. 895).

MICAJAH'S UTERINE WAFERS AND PISO'S TABLETS.—The A. M. A. Chemical Laboratory has determined that Micajah's Uterine Wafers and Piso's Tablets are practically identical—a mixture of dried alum, borax and boric acid. While Micajah's Uterine Wafers are advertised to the medical profession, Piso's Tablets are a "patent medicine." The claims made to the public for Piso's Tablets are silly and mischievous—but no more so than those made to the medical profession for Micajah's Uterine Wafers (Journal A. M. A., September 25, 1915, p. 1128).

EPISAN (BROBOR).—The Council on Pharmacy and Chemistry finds Episan, recently renamed Brobor, ineligible for New and Nonofficial Remedies. Neither name indicates the active ingredients—potassium bromide, 44.3 per cent; borax, 41.2 per cent; zinc oxid, 3.68 per cent, and amyl valerate, 4 per cent. A physician prescribing the preparation under either name would not realize that he was administering borax, and therefore would not take the precaution to watch the intestines and the kidneys. Also, he would not realize that the treatment was essentially a bromide treatment. There is no evidence to show that borax is harmless, as claimed, or that either borax or zinc oxid is a nerve sedative (Journal A. M. A., September 25, 1915, p. 1130).

County Societies.

FRANKLIN COUNTY.

(Reported by Thos. Douglass, Sec'y.)

The regular meeting of the Franklin County Medical Society was held September 7. Dr. Warren, president, in the chair. In addition there were present: Drs. Harrod, T. B. Blakely, Post, Vaught, Rambo, Porter, Downey, Blackburn, Benefield, Hodges, Williams and Douglass, and four visitors—Drs. D. W. Goldstein and E. C. Hunt of Mulberry, Dr. J. G. Eberle of Fort Smith, and Dr. J. E. Kilburn of Barnes. Dr. C. W. Garrison was expected, but did not make his train.

Dr. Harrod reported some interesting surgical cases, ovarian cyst, appendicitis, and head injury. There was a very interesting discussion of the latter case and head injuries

in general. Dr. Blakely reported a case of head injury from a falling tree, in which trephining in several places was done, several clots removed, with recovery of patient. Dr. Post reported a case of fracture at the base of the skull. Dr. Porter reported two cases of injury to spine, with concussion of brain from being thrown from a wagon. A case of spina bifida was presented by Dr. Williams.

There was a large pellagra clinic, some fifteen or twenty cases present. Dr. Goldstein talked interestingly on the subject of pellagra. He does not have much confidence in salvarsan in the treatment now. He had treated all cases according to Goldberger. Salvarsan seems to bring on physical disturbances earlier. Pellagrins are very poor operative risks. Thinks improvement really due to feeding. Sodium cacodylate, in his opinion, is as good as salvarsan.

Dr. Eberle said that he was not a dermatologist, but could back up what Dr. Goldstein had said. He had seen a number of cases with Dr. Goldstein. Improvement in one series of cases was remarkable. He called attention to the occurrence of pellagra complicating syphilis.

The presence of our visitors was very much appreciated.

INDEPENDENCE COUNTY.

(Reported by S. A. Drennen, Sec'y.)

Batesville, October 6, 1915.—The Independence County Medical Society met in this city October 4. Members present: V. D. McAdams, Cord; W. J. Long, S. N. Robertson, Sulphur Rock; T. N. Rodman, Newark; M. S. Craig, J. H. Kennerly, R. C. Dorr, W. B. Lawrence, F. A. Gray, J. W. Case, C. G. Hinkle, O. J. T. Johnston and S. A. Drennen, Batesville.

The program was as follows:

“Ductless Glands,” by R. C. Dorr, Batesville.

“Gangrene of the Scrotum,” report of a case, by W. B. Lawrence.

“Quinin—Different Methods of Administration,” by T. N. Rodman.

“Acute Nephritis,” by V. D. McAdams.

An interesting discussion followed the reading of each paper.

Drs. Robertson, Hinkle, Craig and Roe were appointed to prepare the program for

MEDICAL ASSOCIATION, 1915-1916.

Detroit, Mich., 1916.

- COUNCIL ON HEALTH AND PUBLIC INSTRUCTION—H. B. Favill, Chairman, Chicago, 1916; Walter B. Cannon, Boston, 1917; W. S. Rankin, Raleigh, N. C., 1918; H. M. Bracken, Minneapolis, 1919; Milton Board, Louisville, Ky., 1920; Frederick R. Green, Secretary, 535 N. Dearborn St., Chicago.
- COUNCIL ON MEDICAL EDUCATION—W. D. Haggard, Nashville, Tenn., 1916; James W. Holland, Philadelphia, 1917; H. D. Arnold, Boston, 1918; Arthur D. Bevan, Chairman, Chicago, 1919; Robert C. Coffey, Portland, Ore., 1920; N. P. Colwell, Secretary, 535 N. Dearborn St., Chicago.
- COUNCIL ON SCIENTIFIC ASSEMBLY—George H. Simmons, Chicago, 1919; Roger S. Morris, Chincinnati, 1918; E. S. Judd, Rochester, Minn., 1917; J. Shelton Horsley, Richmond, Va., 1916; Alexander R. Craig, Secretary of the Association, ex-officio.
- COUNCIL ON PHARMACY AND CHEMISTRY—O. T. Osborne, New Haven, Conn., 1916; Torald Sollmann, Cleveland, 1916; M. I. Wilbert, Washington, D. C., 1916; Reid Hunt, Boston, Mass., 1917; J. H. Long, Chicago, 1917; Julius Stieglitz, Chicago, 1917; David L. Edsall, Boston, 1918; R. A. Hatcher, New York City, 1918; A. W. Hewlett, Ann Arbor, Mich., 1918; John Howland, Baltimore, 1919; Henry Kramer, Philadelphia, 1919; C. L. Alsberg, Washington, D. C., 1919; John F. Anderson, Washington, D. C., 1920; F. G. Novy, Ann Arbor, Mich., 1920; George H. Simmons, Chairman, Chicago, 1920; W. A. Puckner, Secretary, 535 N. Dearborn St., Chicago.

CTIONS, 1915-1916.

- PATHOLOGY AND PHYSIOLOGY—Chairman, F. P. Gay, Berkeley, Cal.; Vice Chairman, James Ewing, New York; Secretary, Isabella C. Herb, 110 S. Ashland Blvd., Chicago.
- STOMATOLOGY—Chairman, F. B. Moorehead, Chicago; Vice Chairman, Arthur D. Black, Chicago; Secretary, Eugene S. Talbot, 31 N. State St., Chicago.
- NERVOUS AND MENTAL DISEASES—Chairman, George A. Moleen, Denver; Vice Chairman, M. A. Bliss, St. Louis; Secretary, A. S. Hamilton, 513 Pillsbury Bldg., Minneapolis.
- DERMATOLOGY—Chairman, Howard Morrow, San Francisco; Vice Chairman, Everett S. Lain, Oklahoma City; Secretary, H. H. Hazen, The Rochambeau, Washington, D. C.
- PREVENTIVE MEDICINE AND PUBLIC HEALTH—Chairman, William C. Rucker, Washington, D. C.; Vice Chairman, James Adams Hayne, Columbia, S. C.; Secretary, O. P. Geier, Ortiz Bldg., Cincinnati.
- GENITO-URINARY DISEASES—Chairman, Louis E. Schmidt, Chicago; Vice Chairman, Francis McCullum, Kansas City, Mo.; Secretary, W. F. Braasch, Rochester, Minn.
- HOSPITALS—Chairman, L. W. Littig, Davenport, Iowa; Secretary, John A. Hornsby, Tower Bldg., Chicago.
- ORTHOPEDIC SURGERY—Chairman, Russell A. Hibbs, New York; Vice Chairman, E. W. Ryerson, Chicago; Secretary, Emil S. Geist, 614 Syndicate Bldg., Minneapolis.

S MEDICAL SOCIETY, 1915-1916.

Texarkana, May, 1916.

COUNCILOR DISTRICTS AND COUNCILORS, 1915-1916.

- FIRST COUNCILOR DISTRICT—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph counties. Councilor, F. L. Nelson, Corning. Term of office expires 1917.
- SECOND COUNCILOR DISTRICT—Clebune, Fulton, Independence, Izard, Jackson, Sharp and White counties. Councilor, L. T. Evans, Barren Fork. Term of office expires 1916.
- THIRD COUNCILOR DISTRICT—Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis, and Woodruff counties. Councilor, H. H. Rightor, Helena. Term of office expires 1917.
- FOURTH COUNCILOR DISTRICT—Ashley, Bradley, Chicot, Cleveland, Desha, Drew, Jefferson and Lincoln counties. Councilor, E. C. McMullen, Pine Bluff. Term of office expires 1916.
- FIFTH COUNCILOR DISTRICT—Calhoun, Columbia, Dallas, Lafayette, Ouachita and Union counties. Councilor, H. H. Henry, Eagle Mills. Term of office expires 1917.
- SIXTH COUNCILOR DISTRICT—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier counties. Councilor, C. A. Archer, DeQueen. Term of office expires 1916.
- SEVENTH COUNCILOR DISTRICT—Clark, Garland, Hot Spring, Montgomery, Saline, Scott and Grant counties. Councilor, J. B. Crawford, Benton. Term of office expires 1917.
- EIGHTH COUNCILOR DISTRICT—Conway, Johnson, Faulkner, Perry, Pulaski, Yell and Pope counties. Councilor, W. A. Snodgrass, Chairman, Little Rock. Term of office expires 1916.
- NINTH COUNCILOR DISTRICT—Baxter, Boone, Carroll, Marion, Newton, Searcy, Stone and Van Buren counties. Councilor, Leonidas Kirby, Harrison. Term of office expires 1917.
- TENTH COUNCILOR DISTRICT—Benton, Crawford, Franklin, Logan, Sebastian, Madison and Washington counties. Councilor, J. T. Clegg, Siloam Springs. Term of office expires 1916.
- DELEGATES TO AMERICAN MEDICAL ASSOCIATION—Robert Caldwell, Little Rock; R. C. Dorr, Batesville.

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MEDICAL SCHOOL

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No. 6

Original Articles.

WHY WE FAIL TO DIAGNOSE OUR TUBERCULOUS PATIENTS AT THE PROPER TIME.*

By Sam E. Thompson, M. D.,
Assistant Superintendent Texas State Tuberculosis Sanatorium, Carlsbad, Tom Green County, Texas.

Mr. President and Members of the Arkansas Medical Society:

I would be ungrateful indeed if I did not first express my thanks to your Program Committee for their kind invitation to appear before you on this occasion. It is a great pleasure to mingle again with the members of your society, many of whom are the best friends I ever expect to have. The time will never come when my interest in your affairs, your ambitions and your membership shall cease. I shall always share with you your pride in your organization and your splendid men. The warmest place in my heart shall ever remain consecrated to many of your members. Your people are still my people and your achievements my pride.

No physician has quite so good an opportunity to study the methods ordinarily employed by the average doctor in his examination of patients suffering from symptoms of early pulmonary tuberculosis, as does the resident physician in a state tuberculosis sanatorium. And when the sanatorium with which he is connected happens to be located in one of the so-called health resorts of the Southwest, the opportunity is much greater. To these sections the tuberculous subjects come, not only from one state, but from states representing every point of the compass. As a result of this fact, his field for the investigation of this subject is almost limitless.

The statistics I shall submit later in my paper were taken from patients in a state sanatorium, and are therefore restricted to

one state; but my inquiry of patients coming from other states gave practically the same information and carries one to the same conclusion. In fact, the investigation of this question in other states has revealed the condition I shall endeavor to present.

As a rule, it is not the least difficult to secure from patients the information as to what was done in the way of determining their trouble and the different examinations to which they were subjected. In gathering this information, I have made due allowance for error and inaccuracy of statements and the inclination of some patients to "knock" the doctor under whose advice and treatment they failed to improve.

This investigation was suggested to me by a paper, "The Responsibility for the Failure to Diagnose Tuberculosis in Its Early Stages," written by Dr. Lavenson of Los Angeles, Cal., and published in The Journal of the A. M. A., April 6, 1914. Dr. Lavenson takes up the history of sixty-six patients. Of this number, only twelve had the diagnosis made within a few weeks after consulting the physician. "In the remaining fifty-four, the diagnosis was not made until after from three months to five years." In the fifty-four cases, where the diagnosis was not made in a short time, he submits the following facts as to what was done in the way of determining the cause of the patient's trouble:

"In 13.8 per cent of the fifty-four cases, neither physical examination nor sputum examination was made, nor was the temperature taken.

"In 52.7 per cent of the cases, a physical examination alone was made.

"In 12.8 per cent the temperature was taken and a physical examination was made, but the sputum was not examined.

"In 8.3 per cent, the temperature alone was taken.

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

"In 4.1 per cent, a physical examination was made and the sputum was examined, but the temperature was not taken.

"In 5.5 per cent of the cases, the patient referring the complaint to the larynx, sought a larynologist and in these cases only a laryngeal examination was made.

"One patient had the sputum examined, but neither was physical examination made nor was the temperature taken.

"In but one instance in which the diagnosis was not made, were physical and sputum examinations made and the temperature determined."

I presume no one will deny that the most important measures to be employed in the examination of a patient suffering from symptoms of early tuberculosis are: the taking of the pulse and temperature at least four times a day for a week or more, a thorough chest examination (chest to be stripped), a microscopic examination of the sputum, and a complete history, personal, family and environmental. Accepting this statement as a fact, I have gone into the histories of a hundred cases and endeavored to find out just what was done at the beginning in the way of making a diagnosis, and what kind of examinations were made and the methods employed. It must be borne in mind that these patients were suffering from unmistakable symptoms of early tuberculosis, for which they sought relief. And many of them consulted as many as five and six physicians before the diagnosis was made, and insisted on each occasion that they feared "lung trouble." In most cases, before the diagnosis was made, they were advised that their lungs were "as strong as a horse."

Of the hundred cases tabulated, I found that only twelve had the diagnosis made at the beginning (within ten days). In the remaining eighty-eight cases the diagnosis was made within from four weeks to six years.

In 15 per cent of the eighty-eight cases, the pulse and temperature were not taken; neither was there a physical or sputum examination made.

In 50 per cent of these cases, a physical examination alone was made and this was done through patient's clothing.

In 10.4 per cent, the temperature was taken and a physical examination was made, but the sputum was not examined.

In 9.3 per cent, the temperature alone was taken and this was done at the time of patient's visit to doctor's office.

In 5.2 per cent, a physical examination was made and the sputum examined, but the temperature was not taken.

In 4.8 per cent of the cases, the patients referred the complaint to the throat. In these cases the throat only was examined.

Three patients had the sputum examined, but a physical examination was not made; neither was the temperature or pulse taken.

Of the eighty-eight cases not diagnosed at the beginning, six were treated for pneumonia following la grippe, thirteen were treated for colds, seventeen were treated for bronchitis, eight were treated for la grippe, fifteen were treated for malaria, two were treated for typhoid fever, five were treated for catarrh seven were treated for chronic indigestion, three were treated for liver trouble, and twelve were supposed to "be run down" and treated accordingly.

These figures speak for themselves as to the relation of the medical profession to the tuberculosis problem.

Dr. John W. Flynn of Arizona, who probably sees as many tuberculous patients as any doctor in the Southwest, recently published the following statement: "Those who have made a special study of vital statistics have estimated that there are over five hundred thousand persons in the United States constantly affected with manifest tuberculosis and that one-fourth of all deaths (due to preventable diseases) are caused by tuberculosis. As practically every one of these five hundred thousand consult a physician at least spasmodically, and quite a large proportion are under the constant care of a physician, it is evident that tuberculosis constitutes quite a large percentage of all cases treated by the physicians of every state. There is no other chronic disease of which the physicians of this country see so many.

"Since tuberculosis is so general among all classes, in every state in the Union, one would naturally expect to find the medical profession especially well qualified to diagnose and treat this disease.

"A number of years' experience in treating tuberculosis patients from all parts of this country forces one to the conclusion that there is probably no other prevalent chronic

disease, the early diagnosis and proper treatment of which are so shamefully neglected by the medical profession of the United States."

In my judgment, there are three reasons why tuberculosis is not more often diagnosed in its incipency. First is the ignorance and carelessness on the part of the patient. He does not understand the significance of the early symptoms from which he is suffering, and carelessly lets them run along until he is really sick. The other two reasons rest with the doctor. In the first place, his clinical picture of tuberculosis was drawn twenty-five hundred years ago. The patient must be pale, wasted, worn. He must be suffering from continuous cough, profuse and foul expectoration, night sweats and high temperature; and the disease must "run in the family." In the second place, his examinations are lacking in thoroughness. He is disposed to ignore the generally multiform and apparently innocent symptoms, none of which, as a rule, are referable to the lungs. In this, however, the doctors who graduated as long as ten years ago are following their teaching. It is practically within the last eight to ten years that we have handled tuberculosis in a rational way. Prior to that time the diagnosis of tuberculosis was considered equal to signing the patient's death warrant. And that was virtually what it meant, as the diagnosis was not made until the advancement of the disease rendered its condition incurable. There were a few doctors who understood the disease at that time, but this was the attitude of the rank and file of the profession.

In proof of this contention, I quote from three of our most popular works on practice. Practice of Medicine, by Tyson, published in 1896, under the head of "Symptoms," page 227, gives the following: "In another instance an individual is subject to cold; he takes cold repeatedly, and each attack, while passing away, yields more stubbornly than the previous one, and finally one comes that persists. There is daily fever, which abates to return again; emaciation is evident and the bright eye and burning cheeks and night sweats again attest the arrival of the dread disease."

Practice of Medicine, by Thompson, published July, 1900, page 245, under symptoms:

"1. Haemoptysis, which may precede any other evidence of local trouble and be repeated several times at intervals of months

or a year or two. In other cases it is the forerunner of very rapid local changes.

"2. Acid dyspepsia and anaemia with palpitation and lassitude.

"3. Obstinate cough, following a slight cold, a protracted 'winter cough' in several successive seasons, or an ordinary subacute catarrhal bronchitis.

"4. Progressive loss of weight and strength, although the patient may be eating and sleeping well.

"5. Chills, fever and sweating, as in malarial fever.

"6. A continued hectic type of fever, prolonged, of low grade, and not yielding easily to treatment."

Practice of Medicine, by Osler, published 1895, under Symptoms, page 240: "Pain in the chest may be early and troublesome, or absent altogether. It is usually associated with pleurisy and may be sharp and stabbing in character, and either constant or felt only during coughing.

"Cough is one of the earliest symptoms and is persistent in the majority of instances from beginning to end."

Page 241: "The presence of these bacilli in the sputum is an infallible indication of the existence of tuberculosis."

Under Diagnosis, page 250: "The bacilli give an infallible indication of the existence of tuberculosis and may be found in the sputum before the physical signs are at all definite."

Page 257: "So essential is the examination of the sputum in the *early diagnosis of phthisis*, that I would earnestly insist upon the more frequent employment of this method. There is no excuse for its omission, since, if the practitioner has not command of the necessary technique, there are laboratories in many parts of the country at which the examination can be made. Early detection is of vital importance, as the successful treatment depends upon the measures taken before the lungs are extensively involved."

To show that our latest text-books on practice have made practically no improvement in dealing with the diagnosis of early tuberculosis, I quote from one still warm from the press. Tyson's Practice of Medicine, sixth edition, published April, 1914. Under the head of Symptoms, page 288: "The onset

of tuberculosis of the lungs is by no means uniform. Notwithstanding the fact that its insidious nature is well recognized, its initial stage is often overlooked. The victim is scarcely appreciably ill. Yet he may lose flesh and strength continuously. He may even say that he had no cough, while close questioning will ascertain that he has had a slight hacking cough for some time, worse in the mornings. Soon the symptoms are plainer, there is *evident wasting, an intermittent fever, a bright eye* and the *cough with expectoration* is a conspicuous symptom. Yet during all this the patient is cheerful and denies that there is much the matter with him.

"In another instance an individual is subject to cold; he takes cold repeatedly, and each attack, while passing away, yields more stubbornly than the previous one, and finally one comes that persists. There is *daily fever*, which abates to return again; emaciation is evident, and the bright eye and burning cheeks and *night sweats* again attest the *arrival* of the dread disease."

If we are to detect tuberculosis in its incipency, these pictures must be turned to the wall. It is just as consistent and less dangerous to wait for the hair and eyebrows to fall out, the throat to ulcerate, and the body to scab before making the diagnosis in syphilis.

The National Association for the Study and Prevention of Tuberculosis has adopted the following definition of incipient tuberculosis: "Slight or no constitutional symptoms (including particularly gastric or intestinal disturbance or rapid loss of weight); slight or no elevation of temperature or pulse at any time during the twenty-four hours. Expectoration usually small in amount or absent. Tubercle bacilli may be present or absent. Slight infiltration limited to the apex of one or both lungs, or a small part of one lobe. No tuberculous complications."

From the above definition it is clear that a tuberculous patient at the beginning of his disease does not in any special way differ in appearance from the perfectly healthy individual. In fact, he may present a most robust physical appearance. "*The bright eye, burning cheeks and night sweats* come after the patient is doomed. If, like Hippocrates, we wait till our patient *looks like* he has tuberculosis, his chances for recovery are gone.

I recently examined a young woman who weighed 216 pounds, and found that she had

an active tuberculous process in both lungs. Her only complaint was that she felt bad and was tired.

It is not the purpose of my paper to discuss the early diagnosis in tuberculosis, but rather the lack of it. Neither am I contending that an early diagnosis is always easy or even possible in every case; but there is a vast opportunity for the improvement of our past and present records.

I want it understood that I am not decrying the diagnostic ability of the general practitioners. As all-around diagnosticians, they are any man's equal. But facts and figures prove that a large majority of physicians have the wrong idea of early tuberculosis. And this is the general practitioner's burden. He must discover these cases before they can be sent to health resorts or sanatoria for treatment, and he must know how to handle them when they return to their homes. In fact, if he will make his diagnosis at a time when it should and can be done, he can treat the most of his patients successfully at home.

Investigations in private practice and tuberculosis sanatoriums show that less than 35 per cent of the incipient cases show bacilli in the sputum. It therefore follows that in more than 65 per cent of our cases we cannot rely on the microscope for an early diagnosis. The finding of the germs in the sputum is proof positive of the disease, but we cannot afford to let more than 65 per cent of our patients reach the moderately advanced or advanced stage before making a diagnosis. Do not understand me to condemn the microscope. It should be used in every case; but it should also be kept in mind that "absence of proof is not proof of absence;" and we should not hesitate to make a diagnosis because the sputum is negative."

What, then, shall we do that our thoroughness in examinations and diagnoses may be increased? First, let us get out of our minds the Hippocratic picture of tuberculosis drawn twenty-five hundred years ago. Let us bear in mind that a tuberculous patient at the beginning does not look bad or often feel sick, and that as a rule there are no "lung symptoms." This accomplished, we are ready to deal with our patient. We should begin by securing a complete history, personal, family and environmental. Those who know this subject best put habits and environment above heredity. Without the preparation of

the "soil" by habits and accidents, and the supplying of the seed by environment, the disease cannot develop. Then our patient should be stripped to the waist, closely inspected and carefully examined. Take his temperature and pulse at eight, twelve, two, four and eight for at least a week. Make a microscopic examination of his sputum and take his blood pressure. Failing in this, use the tuberculin test or consult a specialist. And when we have done this, we can no longer be censured for lack of thoroughness.

In submitting this paper, I do not wish to appear in the light of a critic. The sincere desire of my effort is to offer aid rather than criticism to the members of our profession.

VISCEROPTOSIS.*

By Mahlon D. Ogden, M. D.,
Little Rock,

Professor of Gynecology, Medical Department,
University of Arkansas.

The consideration of intestinal stasis, first brought into prominence by Mr. Lane, and later the subject of much work and discussion by others, is so closely associated with visceroptosis that a discussion of this phase of it may not be amiss at the present time, and it is therefore the object of this paper to present for your consideration a brief resume of our knowledge on this subject to date. As our fund of information is being daily enlarged by the increasing amount of literature and by more intensive study, we have every reason to expect that in the next few years this condition will assume proportions not dreamed of when Glenard first described it, and so I make no apologies for consuming a little time in reviewing the underlying anatomical principles.

The abdominal organs are maintained in their relative fixed positions by five (5) classes of supports:

First: Prenatal peritoneal fusions to the parietal peritoneum.

Second: The shape of the abdominal cavity which provides a broad shelf above the psoas muscle for support of the heavy organs.

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

Third: The force of the abdominal wall which tends to mould the abdominal organs into a mass and hold them on the shelf.

Fourth: The extraperitoneal fat which is placed in such manner as to maintain and regulate intra-abdominal pressure.

Fifth: The normal mesenteries or ligaments.

Taking up these supports in the order named, and without going into all of the embryologic details, the entire alimentary canal in man is, in the beginning, entirely surrounded by peritoneum, and during embryonic life the final adjustment of position takes place by means of rotation and a fusing of some of the peritoneal layers. The great omentum grows downward from the greater curvature of the stomach, hangs suspended in the abdominal cavity and fuses on its posterior surface with the transverse colon, thus forming the gastro-colic omentum. The peritoneum of the posterior walls of the duodenum fuses with the posterior parietal peritoneum and then disappears, leaving the duodenum an extra-peritoneal organ and with only an anterior peritoneal covering. The colon rotates to the right and descends from the liver to the right iliac fossa, where it becomes fixed by fusion with the posterior parietal peritoneum, the adult ascending and descending colon normally having no mesentery. This fusion also assists in holding both kidneys in place.

Now, a defect in fusion at any one of these localities will contribute largely to a ptosis. The failure of the great omentum to fuse with the transverse colon deprives the colon of one of its supports and an habitual overloading of it with contents results in a midline coloptosis without a gastropptosis, which causes a sharp kinking at the hepatic and splenic flexures with an obstinate constipation. If, on the other hand, fusion has taken place, the stomach may be dragged down with all of the consequent symptoms of gastric indigestion and a stretching of the delicate gastric hepatic omentum. In this condition the duodenum remains the fixed point, and a kink in it occurs with delayed emptying of the stomach and other signs of pyloric obstruction and gastric dilatation. This midline ptosis is often traumatic and can frequently be traced to the same definite strain, usually lifting heavy weights. A mod-

erate degree of midline ptosis may be greatly aggravated by adhesions from various peritoneal inflammations or operations, making the ptosis permanent even when lying in bed. The body formation of these patients is usually normal, except for a contracted upper abdomen in cases of long standing, resulting from its effort to follow the stomach, and the kidneys are not prolapsed.

Regarding the influence of the shape of the abdominal cavity when the normal lumbar curve is present, the axis of the abdominal cavity forms an angle of fifty-one degrees with a vertical line when the body is erect. The importance of this is realized when it is known that a mass exerting a pull of one hundred pounds when suspended, exerts a pull of only seventy pounds when laid on a fifty-one degree inclined plane, so a faulty poise causing a flattening of the lumbar curve adds 30 per cent to the weight which the ligaments, etc., of the abdominal organs must support. The abdominal cavity is also pear-shaped and on cross section is more than three times as large at the level of the lower poles of the kidney than at the level of the appendix. The psoas muscles make a very abrupt shelf and above this is a large pad of fat on which the kidneys, ascending colon and a large portion of the liver rest.

The absorption of this pad of fat is responsible for the prolapse of the kidneys, especially the right, whose lower lobe is attached to the hepatic flexure of the colon. This attachment is so firm that we practically never have a prolapse of the right kidney without a corresponding prolapse of the colon. This explains why the operation of fixation of a floating or movable kidney should never be done alone, but should be combined with the fixation of the other prolapsed organs. Nephropexy has therefore fallen into disrepute and we know now why we did not get good results from it, however skillfully done. The splenic flexure has the firmest attachments of any point in the colon and is the last to give way, dragging the left kidney down with it. A prolapsed left kidney is therefore pathognomonic of a general visceroptosis.

The function of the anterior abdominal wall is easily seen, and relaxation caused by rapid child-bearing, etc., permits the abdominal organs to slide forward and downward off their shelf and becomes quite a factor

when associated with overwork or overstrain and muscular weakness, causing imperfect poise and absorption of the retro-peritoneal fat.

There remains yet the group of cases generally referred to as the right-sided ptosis. This is always due to imperfect rotation and fusion of the ascending colon and is present in one-fifth of all individuals, and all of our cases of right-sided ptosis are found in this one-fifth. The normal ascending colon without a mesentery practically never prolapses, and, as demonstrated by Keith, the caecum mobile of Wihms and the pericolic membrane of Jackson are both of embryonic and not of inflammatory origin.

The symptoms of visceroptosis are those of intestinal stasis and it is not necessary to go into a long list of symptoms which have been ascribed by Lane and others to this condition. They range from exophthalmic goitre and epilepsy to tuberculosis and arteriosclerosis, and the list reads like the curable diseases in a patent medicine advertisement.

Generally speaking, chronic abdominal pain or indigestion should warrant an examination for visceroptosis, which should be excluded before any diagnosis in a chronic abdomen should be made. The cases of general ptosis are the ones which give the fewest symptoms, which is easily explained. The symptoms of visceroptosis are due to stasis behind the kinks and the kinks are at the fixed points, which are last to give way. Finally letting go, the kinks straighten out and the symptoms are relieved.

TREATMENT.

Generally speaking, the treatment of all cases of visceroptosis is at first medical. It has been said that there is no such thing as the medical or surgical treatment of appendicitis, but that it is all just treatment according to the condition present at that time, but I do not believe that the same dictum will hold regarding the treatment of visceroptosis, as our present knowledge of the condition does not justify us in predicting just how much improvement will follow nonoperative treatment in any given case, and it is my personal belief that each case, after a careful physical and x-ray examination, should be subjected to a tentative nonoperative treatment to determine the amount of progress, as many a patient would prefer wearing a support for the remainder of her life with

partial relief, to complete operative relief when the facts are explained. The details of the medical treatment I will take up under congenital ptosis. The relief of some of these cases from surgical operation is very striking and some of the most gratifying cures I have seen following operation have been after the fixation of a caecum mobile or the freeing of a constricting pericolic membrane. A pericolic membrane should not always be cut when found, as it very frequently takes the place of an imperfect fusion of the ascending colon with the parietal peritoneum and only does harm when the hepatic flexure gives way, or it constricts the colon unevenly. A caecum mobile may be fixed by a few purse-string sutures uniting it to the parietal peritoneum; the hepatic flexure in the same manner. There seems to be some divergence of opinion regarding Coffey's method of suspending a prolapsed stomach and colon, but his reported results have been so good and his reasoning is so sound that it is still the method of choice. In Coffey's operation the falciform ligament of the liver also shortened, and the edge of the liver sewed to abdominal wall in the shape of a Y. The great omentum is then sewed transversely to the anterior abdominal wall a short distance below the colon, thus causing the stomach and colon with the gastro-colic omentum to form a hammock across the upper abdomen. The upper abdomen is then expanded by a plastic operation on the fascia of the abdominal wall, and when the abdomen is very pendulous the reverse operation is done upon the lower wall, thus making an autoplasmic bandage.

Rövsing fixes the anterior wall of the stomach to the anterior abdominal wall, claiming that Coffey's operation, on account of the thinning of the gastro-colic and great omentum, does not furnish sufficient support and that the condition will recur.

CONGENITAL VISCEROPTOSIS.

This condition begins often in childhood and is not congenital in the sense that it exists at birth, but is the result of certain congenital defects of body structure. The causes of these defects need not be discussed here. Practically all these patients are emaciated (the result of stasis), and the loss of body fat, especially in the abdomen, deprives these organs of a large proportion of their support. The emaciation is both a cause

and effect of ptosis. Associated with this emaciation is a general muscular weakness or insufficiency which is a direct cause of the imperfect poise that begins in childhood. The shoulders are stooped, the lumbar curve is obliterated so that the back is flat, and the patient assumes the posture of a man carrying another in his arms, the so-called "carrying posture." The lower abdomen protrudes and the normal angle of ninety degrees between the axis of the abdominal cavity and the axis of the pelvis becomes reduced so the pelvic contents receive a more direct thrust from above. The results of such pressure upon the pelvic organs is obvious. The upper abdomen is contracted, the ribs slant more abruptly downward, and the epigastric angle is much narrowed. The contracted upper abdomen tends to force its contents downward and the relaxed abdominal wall with its insufficient muscles completes the circle. The flabby abdominal wall never causes ptosis by itself, as it is only a comparatively small factor in its production.

Incidentally, flat foot is a very frequently associated condition due to the general relaxation.

It is these causes of congenital ptosis which show most often a prolapse of the left kidney, which is pathognomonic of general ptosis. In this group the lower abdomen does not always protrude, though the prolapse may be extreme.

Surgery has no place in the treatment of congenital ptosis. It is an orthopedic problem, for it is obvious that a displaced kidney or imperfect function of any one organ has its relation to all of the factors mentioned above and the operative shortening of mesenteries or ligaments is worse than futile. Many of these cases can be much benefited by proper selection of abdominal support, correction of poise, a diet and hygiene calculated to cause them to put on fat and exercise directed toward the improvement of muscular tone and the expanding of the upper abdomen. Regarding the abdominal support, I have been in the habit of fitting my post-operative abdominal cases with a corset to replace the classical binder and have found this method so satisfactory that I extended its use to cases of ptosis requiring abdominal support. I have used several makes of the ordinary commercial corset, but some of them

are so constructed as to be of absolutely no value in this condition.

There are several points in the selection of a corset worthy of mention. In the first place, the material should be heavy and strong enough to withstand the strain. The lighter corsets give way after a few weeks and their usefulness is ended. Not less than two laces should be used in the back (the front lace corset has been an absolute failure in my hands in spite of the manufacturer's claim), and the lower lace should reach to a point on a level with the crest of the ilium, as it is here that most of the strain comes, the bony pelvis furnishing a nonecompressible support. From the crest of the ilium up, I allow the patient to indulge her own taste and ideas of comfort, merely forbidding compression. Anteriorly, the two front steels should reach exactly to the upper border of the symphysis pubis and should be of the "straight front" variety. This, I believe the most important point in corset fitting. The front stocking supporter should be attached directly to the end of the front steels and not to either side, and should be attached to the stocking well to the inner side of the thigh, so they will cause the lower end of the steel to press against the hypogastrium, a backward pull.

The corset should always be applied in the supine position (in ptosis, in the Trendelenberg posture), and in this position should be hooked from the bottom up. The scaphoid abdomen mentioned above, with marked prolapse is the most difficult of all to correct with a corset, as in the supine or Trendelenberg posture the abdominal wall falls away from this anterior support and the viscera promptly resume their former location when the patient stands erect. This, however, can be avoided by padding the concavity of the lower abdomen with folded towels until the corset fits snugly. One case of this kind was relieved almost immediately of symptoms closely simulating gastric ulcer, which reappeared each time that she omitted the towels under her corset. Some difficulty might be at first experienced in obtaining a Trendelenberg position at home, but a simple procedure worked out by a patient of mine has solved the problem. Place one end of an ironing board on the bed, the other on the floor. Lay the corset on the board, have the patient re-

cline upon the corset and board with her shoulders toward the floor and hook up the corset beginning at the bottom. The results are entirely satisfactory.

I wish to reiterate that a large majority of cases of visceroptosis may be relieved by non-operative measures, and surgery alone should never be considered in the treatment of these cases. The consent of the patient is not an indication for operation, and only valid excuse for surgery is the failure of medical measures to relieve the patient. In conclusion, the *x-ray* is invaluable in the intelligent diagnosis and treatment of these cases, but is also one of the most dangerous agents yet placed in the hand of the unscrupulous surgeon, as it is so convincing to the laity and at the same time meaningless when considered independently of the history of the case and when not properly interpreted.

GENERAL ANESTHESIA.*

By M. G. Daly, M. D.,
Little Rock.

PREPARATION OF PATIENT.

Have patient enter the hospital afternoon before operation; light diet given and enema to empty lower bowels. Do not give a purgative; it will cause a general disturbance of the alimentary canal, helping to produce nausea and gas pains after operation. It will also cause a weakness of the patient's general condition. Have the field of operation prepared, after which give the patient a bath so that he will not be disturbed on the morning of operation. Two hours before operation have the patient given a fourth of morphin and 1-150 atropin (condition of each individual case governing amount of dose). This will quiet the patient's nervous system, eliminate worry, and the patient will require very much less anesthetic. Immediately before entering operating room, if the patient does not show marked effects of the hypodermic, have 1-8 of morphin given (morphin is easier eliminated from the system than ether). This will still lessen amount of anesthetic. Make the patient's surroundings as cheerful as possible. Have him believe that the taking

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

of an anesthetic is pleasant and that it is possible to enjoy it rather than have him look on it with great dread. This will also lessen the amount of anesthesia.

THE IDEAL ANESTHETIC.

Give enough nitrous oxid to produce primary unconsciousness, then begin ether by the drop method. Have field of operation prepared soon after anesthetic is begun. This will divert the patient's mind and he will take the anesthetic more kindly. From three to five minutes after anesthetic is begun, full surgical anesthesia should be reached. Let the respiration be your guide in giving ether. Give it slowly and do not produce a spasm of the respiratory muscles of the throat. Have the respiration as nearly natural as possible. This will eliminate the lack of absorption of anesthetic and you will avoid an exciting stage with the most difficult patient. Deep narcosis should be sought until after the clamps are placed in the abdomen, after which very little, if any, anesthetic should be given until surgeon is ready to close abdomen. Deeper narcosis until peritoneum is closed, and after this very small amount of anesthesia is required to complete the work. It is well after closing the peritoneum to begin nitrous oxid oxygen again. In each and every case anesthesia ranging from ten minutes to one hour, patient should be awake before they leave the operating room. This will add greatly to the comfort and recovery of the patient. The minimum amount of anesthetic to produce complete work in each and every case should be given.

CHOICE OF ANESTHETICS.

Let us admit that we know nothing of how anesthetics do their work. Their action has not been approached by the physiologists as yet. Then why should we speculate or argue which produces the greater shock or is the greater or less destructive to certain elements of the blood, or lipoids of the brain? Experience has established certain results with which we are familiar, and while we may not know how these results are brought about, their production is established beyond a possibility of dispute. After being actively engaged in giving anesthetics for six years, and being closely associated with after treatment and hospital work, having administered several thousand anesthetics to all classes of patients, using ether, nitrous oxid and chloro-

form, carefully following up recovery of each patient, I am persuaded that ether is the anesthetic of choice. The first thing to consider in choosing an anesthetic is safety, and comfort of the patient. Ether holds its place as the safest and most comfortable anesthetic. Ether administered by an experienced anesthetist with the most unfavorable patient, one would not expect immediate danger. It will produce complete relaxation, enabling the surgeon to do the very best surgery without annoyance of any kind. Ether given in a minimum dose will rarely, if ever, produce after complications such as pneumonia or kidney disturbance. These disturbances could only follow patients that have been improperly anesthetised, where the necessary amount has been several times given.

Nitrous oxid will not produce relaxation and should only be given in minor surgery. If it is undertaken in laparotomies the surgeon will not be able to do complete work in a reasonable time, and very likely he will fail to do all that is necessary to cure his patient. Some patients will only reach the stage of primary anesthesia under nitrous oxid oxygen, and, no matter what you may do, will never reach full surgical anesthesia, therefore making it impossible to operate at all. Hence, you see the folly of trying to use it in these cases.

CHLOROFORM.

Chloroform anesthesia and chloroform poisoning in a patient highly susceptible to chloroform poisoning is so closely associated that in the hands of an expert it is a very unsafe anesthetic. Its danger of immediate fatality will never warrant its use.

SECRETOTEN.—To call attention to the unfounded and extravagant claims made for internal secretion products, the Council on Pharmacy and Chemistry reports on Secretogen Elixir and Secretogen Tablets, sold by the G. W. Carnrick Co. The report discusses the insufficiency of the evidence for the administration of secretin—claimed to be present in these preparations. The Council holds that a rational basis for the therapeutic value of Secretogen is lacking, because there is no evidence that the absence of secretin is a cause of gastro-intestinal diseases, and because there is no evidence that secretin in any form is physiologically active when administered by the mouth (Journal A. M. A., May 1, 1915, p. 1518).

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Editorials.

THE MALPRACTICE SUIT EVIL.

Baron Reading, chief justice of England, when in the United States as one of the commission to negotiate the big war loan, had something to say, in a good-natured way, of our cumbersome method of legal procedure. His criticism was just. We have too many laws, too many lawyers, too many technicalities, too many loopholes and too much frivolous and harmful litigation. In no direction is this more apparent than in the increasing number of suits against reputable physicians for so-called malpractice. This is, in part, almost wholly it may be said, due to the activities of a certain type of pestiferous pettifogger whose mission is to suggest and foment litigation for the fees in prospect; frequently contingent fees, meaning a 50-50 split with the plaintiff, of the amount recovered.

These suits are prompted by various motives and take a wide range of alleged grievances. They may be brought by the alleged victim, or, if dead, by his family; they may recover "mental anguish" as well as actual injury. This "mental anguish" is cause for damages where no physical injury is suffered. In the Federal Court, in Little Rock, a man recovered damages for alleged mental agony,

because of delay in forwarding a telegram, whereby he was delayed in attending his father's funeral. In another case of railroad accident a man who escaped physical injury sued for damages for the mental agony he suffered. Thus do the legislators help to make the law a commercial enterprise, rather than of justice; for it is difficult to imagine a man of proper ideals making money out of his dead father by being late to the funeral, or of a man lucky enough to escape injury in a wreck, suing for damages on such grounds. In such cases it is widely improbable that suit would ever have been thought of but for the prompting of a shyster. It is fairly presumable that such laws are introduced at the suggestion of that class of lawyers, for it is inconceivable that any ordinary legislator would think of doing so.

In malpractice suits the underlying motive may be disappointment at the result of an operation, or the termination of a disease, which nature, with the assistance of a physician, could not cure. It may be instigated by personal spite against the physician or surgeon, or to avoid payment of the bill for professional services. And even suits have been brought after a successful operation, on the ground of some alleged after effect, probably having nothing to do with the operation, or possibly beyond human skill to avoid, a risk frequently necessary to take.

Were medicine an exact science, there might be some excuse for some of the suits brought; but it is not so, and no medical man asserts that it is. Mistaken diagnosis is not infrequent. The physician diagnoses a case and treats it accordingly. It frequently occurs that to satisfy the patient, or because the physician himself is baffled, a consultation is called. If medicine were an exact science, or if diagnoses were infallible, there would be little need for consultation. It sometimes occurs that the consulting physicians disagree. Such being the case, no reputable physician should be held liable for mistaken diagnosis, or treatment. He does for his patient all that he can with the limitations placed on all human effort. He can do no more, nor can he ward off the inevitable written in the book of fate.

That, because his patient succumb, whether young or old, or that an operation is not always successful, is not a good reason that he should be harassed by merenary lawsuits, and his reputation assailed. There are two

remedies for this unfortunate state of affairs. The English courts keep from the calendar thousands of trivial cases by having all cases first go to the referee. If they are improper suits, if they are too trivial to occupy the time of the courts; if an explanation of the facts to both litigants can pave the way to a compromise; if for any reason they should proceed no further, they never reach the actual courts at all. The referee's ruling is final and conclusive. It is scarcely to be hoped that our legal brethren would consent to this method of curtailing litigation; we are not sufficiently advanced for that. The other remedy is for our Committee on Legislation to watch closely all bills introduced and use every effort to prevent the passage of bills not founded on good, common sense and justice; and if bad laws exist they should use every effort to have them repealed.

The subject of medical defense is likely to come up before our House of Delegates at the next annual meeting, and plans may be laid to put the Arkansas Medical Society in line with the other twenty-four state societies having medical defense laws. Meanwhile, we shall gladly give space to any of our readers who have views to express on this subject which are of importance to the entire profession.

WISCONSIN'S STERILIZATION LAW.

Wisconsin's law providing for the sterilization of the feeble-minded went into effect this month, with twenty-four operations on patients confined in the institution for feeble-minded at Chippewa Falls. This is a victory over prejudice which is noteworthy. Attempts to pass such laws have been opposed by well-meaning people, who see in it only an attack on the rights of the individual. Laws passed have been fought in the courts, and, as affecting the confirmed and hereditary criminals, have been declared unconstitutional. The people generally are not alive to the importance of this question and do not realize that the welfare of the whole community is of far greater importance than the carnal pleasure of the individual. We have a constantly growing percentage of feeble-minded and of hereditary criminals. The sooner the people understand that safety of society depends upon checking the transmission of hereditary evil traits, the sooner other

states will follow the example of Wisconsin, as to the hereditary criminals. In no other way can the increasing ratio of criminals to the whole population be controlled. It is unfortunate that with the ever-shifting population from state to state, peculiar to this developing country of ours, it will be practically impossible to arrive at definite results of the Wisconsin experiment, but that it will conduce the general welfare, by limiting the possibilities of the propagation of the unfit, cannot be controverted.

ANOTHER WAR PERIL.

Attention has been called in these columns to the inevitable effect of the gigantic war in Europe, on the future of the nations engaged in it. The fit are sent to the front; the unfit are left at home to become the fathers of the next generation. But the evil does not end there. Dr. George W. Crile of Cleveland, who was in charge of the American ambulance service in Paris, returning home, tells of the millions of persons in Europe who are the victims of the mental suffering, lacerated feelings and exciting emotions engendered by the shock of war, even although they escape actual physical injury. The consequence is seen in the abnormal increase in organic diseases brought on by fear, anxiety, overexertion, anger and hate. He calls it the "Kinetic Drive," and declares that currents are generated which affect the stomach, brain, liver and kidneys, and otherwise weaken the system.

We all know the immediate effect of violent emotions on the physical body. We know that a sudden mental shock may prove fatal, of joy as well as grief or pain. We know that the emotions affect the nerves and the digestion. Take month after month of fear, anger, hate, apprehension, nervous strain, exertion, loss of sleep, desire for revenge, and other evils associated with the horrors of war, and it is easy to foreshadow the ultimate direful effect of the body politic.

"AT THE BAR OF PUBLIC OPINION."

"When the medical profession gives the public facts regarding the fraudulence and dangers connected with the exploitation of 'patent medicines,' the 'patent medicine' manufacturer has a stock retort ever ready:

'The doctors are opposed to "patent medicines" because it hurts their business; because "patent medicines" cut into the income of the medical profession.' Few excuses ever rested on a less substantial basis. Considered from the financial standpoint only, the fraudulent 'patent medicine' business is the physician's greatest boon. Far from curtailing his income, the advertising and selling of fraudulent 'patent medicines' greatly augment it. Every lurid 'patent medicine' advertisement that frightens the healthy into the belief that they are ill, sends four of such people to the doctor to one that it sends to the 'patent medicine' counter. No small proportion of physicians' patients are those who, neglectful of disease in its early stages, and believing the claims made for fraudulent 'patent medicines,' have placed their dependence on these products until they have reached a condition where prolonged medical attention is imperative. For years most newspapers and many magazines have been under the blighting influence of the profits of quackery. But a change is taking place and many newspapers and magazines of the better class are now outspoken in their denunciation of the cruelty and fraud that seem to be inseparable from the exploitation of 'patent medicines.' The Propaganda department of The Journal of the American Medical Association has collected some editorial opinions on the 'patent medicine' business and quackery from newspapers and magazines and reprinted them in pamphlet form. These editorial excerpts are from publications that not only have no possible connection with the medical profession; but could, if they would, be beneficiaries of the 'patent medicine' industry; they are criticisms of a business that, as the price of silence, would willingly give fat advertising contracts to the publications that have voiced them. The pamphlets are sent by The Journal, 535 North Dearborn Street, Chicago, on receipt of a request accompanied by a 2-cent stamp."

Abstracts.

BLINDNESS FROM NASAL SINUS DISEASE.

Three cases of sudden monocular blindness, diagnosed as due to nasal suppuration, and successfully treated by removal of the endonasal disease, are reported by H. H. Stark,

El Paso, Texas (Journal A. M. A., October 30, 1915). These cases led the author to investigate the ophthalmic literature, and he was able to collect eighty-eight cases of sudden blindness from nasal disease, most of them with normal fundus when cases of systemic disease, detached retina, and uveitis are excluded; and include only two having orbital abscess, thus confining the cases to that form recognized as retrobulbar neuritis. In sixty-nine of the cases, one eye, and in nineteen both eyes, were affected. The symptoms, in order of their frequency, were, first, nerve involvement, which was rather obscure in a number of cases, but was more or less apparent in fifty-two of the eighty-eight. The conditions of the pupils was next one of the earliest signs of eye involvement from the nasal accessory sinuses. The pupil was sometimes dilated, sometimes contracted; and the probable causes of these conditions are discussed as well as the special nasal disease accompanying it. Exophthalmos was noted in seventeen cases, and was present most frequently with antrum and ethmoid disease, which include a greater surface of the bony wall of the orbit. Restriction of the visual field was found in three of the reported cases, and there were fourteen cases with scotoma. The most definite sign, Stark says, and most to be relied on, is central scotoma, which he found reported in twelve cases. The value of enlargement of the blind spot he has not yet definitely determined. As regards the cause of the optic involvement in nasal disease, several theories have been proposed: pressure circulatory disturbance, and toxemia. The one theory that seems to fit all cases is that of pressure, varying only in degrees. This is doubtless due to the inflammatory condition; the circulatory disturbances and toxemia may play a secondary part. Cases in which there is no orbital infection, and loss of vision comes on after a slight improvement, he explains by the shrinking which takes place after the cause has been removed, which causes constriction of the optic nerve. This would also explain many cases of muscular asthenopia, and possibly some which have been ascribed to amblyopia ex anopsia.

OPEN AIR SCHOOLS.

There are 20,000,000 schoolchildren in the United States, says S. C. Kingsley, Chicago (Journal A. M. A., October 30, 1915), and

these boys and girls spend 11,415 years in the schoolrooms every school day and school attendance is compulsory. Anyone who has visited schoolrooms intelligently cannot help wondering how much time is lost through drowsiness, inattention and semiasphyxiation due to badly ventilated and overheated rooms. Our theory is that each boy or girl should have a grammar school education, but in fact less than one-half of the whole number ever finish the eighth grade. Health inspection in public schools shows that 12,000,000 of the 20,000,000 schoolchildren have physical defects serious enough to interfere with their school progress. In many cities from 2 to 10 per cent of such defects are serious enough to render school experience practically useless, unless something is done to correct them. Open air school advocates believe that all schoolchildren should have their fresh air rights. In the North the winter months constitute a problem, but Kingsley does not consider that insurmountable. The experience in Chicago with open air schools is narrated by Kingsley. Its advantages are found to be the better inspection and supervision of the children as regards ailments, the smaller number attended to by each teacher and her greater interest in her work. Tabulated statements of the physical improvement and improvement in school progress are given in the paper. The open air school advocates believe in giving the debilitated children the care and attention needed to make them useful citizens, but they also believe that they should not necessarily be sick and debilitated to have these advantages.

HOSPITAL NOISES.

"The inhabitants of a large community who is without the experience of a temporary residence in one of its hospitals feels a sort of humanitarian pride in the now familiar signs, 'Hospital Street—Make No Unnecessary Noise!' A brief stay in some of these institutions is sometimes sufficient to convince one, however, that the faults of others often seem more patent than our own which are nearer at hand. This applies all too often in particular to the subject of hospital noises, which, unfortunately, have not yet everywhere received the degree of consideration and correction which they demand. Few persons who have not given serious thought to the matter will realize the endless sources of noise, which is never soothing to a patient,

and not infrequently is the occasion of intense psychic irritation to even the most docile inmate of a municipal health institution. Dr. Byam Hallings of the Massachusetts General Hospital has recently pointed out some of the unappreciated noise factors, which will be recalled by the initiated through the mere mention of a word or two. Doors and elevators are rarely noiseless; windows and floors may creak and reverberate; chairs and ward utensils are framed for squeaks and rattles; the slam of dishes is rarely soothing, and the sound of bells and buzzers never reach an immune auditor. To all of these and many other varied disturbances must be added the multitude of sounds and noises which are traceable to the human element—nurses, orderlies, porters, employes, visitors, physicians and patients themselves. Dr. Hallings reports that in a routine day more than 3,500 persons passed through a doorway in the main corridor of one of the buildings of the Boston hospital. It is thus easy to see how noise can be created. How to minimize it is a timely problem in every institution," says The Journal of the American Medical Association.

Personals and News Items.

Dr. J. P. Runyan has returned from Boston.

Dr. J. V. Falisi of Little Rock has returned from Chicago.

Dr. Frank Kirby of Harrison visited in Little Rock last month.

Dr. J. S. Ham has moved from Mena to Texarkana.

Dr. Osear Gray and family have returned from California.

Patronize those who patronize your Journal.

Dr. W. A. Snodgrass of Little Rock has been elected to receive the Fellowship Degree in the American College of Surgeons.

Become familiar with the Journal's advertisers by looking through its pages each month.

Drs. F. Vinsonhaler and M. D. Ogden of Little Rock, H. P. and S. P. Collins, Z. N. Short and M. V. Laws, Hot Springs, J. J. Smith, Paris, attended the meeting of the American College of Surgeons at Boston last month.

Our readers will confer a favor by sending us items of news, such as relate to local medical meetings, hospitals, public health, removals, marriages, deaths, etc.

Dr. D. W. Roberts, senior physician at the State Hospital for Nervous Diseases, has resigned to become surgeon at the Sacred Heart Sanitarium, Milwaukee, Wis.

Dr. C. S. Pettus of Little Rock, E. H. Martin of Hot Springs and S. J. Wolferman and St. Cloud Cooper of Fort Smith attended the meeting of the Medical Association of the Southwest at Oklahoma City, October 11-13, 1915.

Arkansas physicians visiting in Little Rock during the past month include J. B. Wharton, El Dorado; C. P. Austin, Cabot; R. N. Manley, Lamar; P. E. Johnson, Holly Grove; V. H. Ragsdale, Fitzhugh; H. W. Brewer, Clarksville, and J. L. Greene, Hot Springs.

Why not have your name appear in our PHYSICIANS' DIRECTORY, every month? For space and rates apply to Dr. William R. Bathurst, 810 State Bank Building, Little Rock, Ark.

The value of your membership in your County Medical Society will be determined by the amount of interest you personally manifest in its activities.

If you have a little money to invest in a good cause, why not carry a professional card in the physicians' directory of The Journal? This is an ethical way of extending your acquaintance and influence. The cost is so small that it is not worth mentioning. Write The Journal for particulars.

RESOLUTION ADOPTED BY THE AMERICAN FIRST AID CONFERENCE.

Washington, D. C., August 24, 1915.

Your Resolution Committee has the honor to report that it has carefully considered the resolution which was committed to it and has drafted it as follows:

Whereas, There is a great lack of uniformity in first aid methods, in first aid packages, and in other first aid equipment, and in first aid instruction; and,

Whereas, Many of the aims of first aid are defeated thereby and needless suffering and expense incurred; therefore, be it

Resolved, That this conference recommends to the president of the United States

that he appoint a "Board of First Aid Standardization," said board to consist of one officer each from the medical corps of the U. S. army, the medical corps of the U. S. Navy, the U. S. Public Health Service, the American National Red Cross, the American Medical Association, the American Surgical Association and the Association of Railway Chief Surgeons of America; this board to deliberate carefully on first aid methods, packages, equipment and instruction, and to recommend a standard for each to a subsequent session of this conference to be called by the permanent chairman; the creation and maintenance of the said board to be without expense to the United States.

Your committee further reports that it has personally consulted the assistant solicitor of the treasury and he has given the opinion that there is no legal objection to the resolution or its purpose.

The committee has also personally consulted the secretary to the president and he has assured your committee that it is his personal opinion that the president will take favorable action in the premises.

W. C. RUCHER, Asst. Surgeon General, U. S. P. H. S.,

MAJOR ROBERT U. PATTERSON, M. C. U. S. A.,
Representing the American National Red Cross,

W. L. ESTES, Chairman Committee on Fractures, American Surgical Association,
Committee on Resolutions.

REGULATION OF THE PRACTICE OF MEDICINE.

The American Medical Association announce that they have just issued a digest of the case law of the statutory regulation of the practice of medicine. Compiled by the Medico-Legal Bureau of the American Medical Association. Price, \$6.00.

It includes:

(1) A list of all Supreme Court decisions, both state and federal, on this subject, arranged chronologically by states, with reference to the court reports in which each decision may be found. This list alone, to the state board secretary or prosecuting attorney, is worth many times the price of the book.

(2) Abstracts of 267 of the most important decisions, arranged chronologically by states.

(3) A digest of the subject, considered topically with copious references to ruling cases under each head.

(4) An analytical index, giving referenees to appropriate sections on each topic.

ARKANSAS OPHTHALMOLOGICAL SOCIETY.

(Reported by Robert Caldwell, Sec'y.)

The Arkansas Ophthalmological Society held its first scientific meeting in Dr. McCurry's office in Little Rock, Ark., September 14, 1915.

Those present were: Dr. William Breath-wit, president, Pine Bluff; Dr. J. L. Jones, Searey; I. H. Irwin, Newport; and Drs. W. B. Hughes, F. Vinsonhaler, W. S. May, W. T. McCurry, J. G. Watkins, C. N. Pate, C. M. Hudson and Robert Caldwell, secretary-treasurer, Little Rock.

The minutes of the last meeting were read and approved.

A constitution and by-laws having been written by Drs. W. B. Hughes, W. T. McCurry and J. G. Watkins, were accepted as written.

A letter from Dr. William R. Bathurst, editor of The Arkansas State Medical Journal, was read and discussed. The society appreciated very much the interest taken by Dr. Bathurst in its work, and a vote of thanks was tendered him for the suggestions made in his letter in regard to a program for the state meeting in May.

A committee was appointed consisting of Dr. F. Vinsonhaler, Dr. W. T. McCurry and Dr. R. Caldwell to act in co-operation with the committee of the State Society to arrange the best possible program for the state meeting as regards papers on ophthalmological and allied subjects.

As the Program Committee had decided to have the first meeting a clinical one, no papers were read.

Dr. W. B. Hughes presented a case of closure of central vein of retina:

Mr. C, age 31; married; two children; came to my office June 1, 1913, complaining of a disturbance of the vision of his right eye. Said everything had a wavy appearance. No evidence of trouble of external parts. Ophthalmoscope revealed slight swelling of the disc centrally, with considerable obscuration

of the margins. Round hemorrhagic spots show on the disc and throughout the retina, except in macular region. Small white areas of exudation appear scattered over the retina, more numerous along the lines of the blood vessels. Arteries normal in caliber, veins greatly swollen and tortuous, standing out in loops almost perpendicular to the swollen retina, the adjacent parts being hidden beneath the elephantous tissue. Pressure upon globe failed to empty the vessels on the disc. Vision 20-15. The next day vision 20-200, and two days later light perception.

Patient says always had good health; wife healthy; children healthy.

Examination showed heart and lungs normal, urine negative. Wassermann I-X.

Diagnosis, closure of the central vein of the retina, probably of specific origin.

Dr. F. Vinsonhaler presented the following case:

Male, age 18; white. Gives history of injury to eye six weeks ago; saw the case one week after injury. At that time there was a fibrinous deposit on the posterior surface of the cornea, with a low grade of iritis and cyclitis. The vitreous was filled with floating opacities. Could get no view of the disc or the cornea with the ophthalmoscope. Vision equaled 1-60. Left eye was examined with the ophthalmoscope and showed picture of old choroiditis; probably congenital.

After the use of atropia and salicylates the vitreous opacities cleared up, also the opacities on the cornea. Optic disc paler than normal. Vision equals 20-60.

Dr. J. G. Watkins presented a case of malignancy of the eyeball:

Mr. R, 74 years old, came to my office complaining of scum over left eye which he wanted removed.

Examination showed an enlargement that probably began at the inferior cornea scleral junction and has now involved the anterior lower two-thirds of the ball.

Diagnosis: Malignant tumor, probably epithelioma, and operation advised.

Dr. J. L. Jones of Searey presented a case of floating opacities in the vitreous.

Dr. Robert Caldwell presented three cases:
1. Young man, age 16 years; facial paralysis following labyrinthum operation.

This young man came into the office on Saturday, complaining of ear ache of twenty-four hours standing. The ear drum was

lanced and at 7 p. m. Sunday the patient was unconscious and vomiting. Extreme lateral deviation of the eyes toward the affected ear. Temperature 105. The case was diagnosed suppurative labyrinthitis, and operated at 10 p. m. Sunday. Labyrinth and cochlea were opened and drained. There was no twitching of facial nerve at operation, yet fourteen weeks after operation we now have a facial paralysis.

2. A child 20 months old; first seen six months ago. At that time maxillary sinus was full of pus. It was opened and drained through canine fossae. Patient progressed favorably until about one month, at which time a zygomatic abscess formed, accompanied with complete paralysis of left arm and leg; but not involving face. Said paralysis spastic in nature, lesion probably in internal capsule. This abscess was opened and drained, later opened again and curetted, all to no avail. About one month ago the right eye became much proptosed. Case now shows discharging sinus from zygomatic fossae, with external opening half an inch below external canthus right eye.

Suggestions were made as to sarcoma, suppurative ethmoiditis, and exostosis. An x-ray examination was recommended.

3. Male, age 49, came into my office complaining of hoarseness of nine months standing.

On examination we find a polyp-like growth involving right false vocal cords and whole upper right side of larynx. All agreed it best to remove a section for microscopical examination, and, if malignant, remove all the growth and cauterize the base with electric cautery.

The president spoke of his great appreciation of the excellent clinic given for the society, and looked forward with great hopes for excellent work in the future.

The society adjourned to meet in Texarkana during the state meeting in May.

TENTH ANNUAL MEETING OF THE MEDICAL ASSOCIATION OF THE SOUTHWEST.

Held at Oklahoma City, Okla., October 11-13, 1915.

(Reported by F. H. Clark, M. D., Secretary.)

A special feature in connection with the meeting held at Oklahoma City this year was the clinical day, which really proved a "red letter day" in the history of the association.

It is impossible in this brief report to give a detailed report of the work done at each hospital, but when the men gathered together that night every one was loud in the praise of what they had seen that day.

The secretary announced that he would open the books for registration at 7 o'clock Monday morning and thought that would be really too early, but he could scarcely believe his eyes when at that hour there were a large number of men standing in front of the desk waiting to register and receive their clinic tickets; and still more surprised when in a half a few minutes before noon it was found that nearly two hundred men had registered. Nothing like this had ever been seen before in the history of the association.

The committee in charge of the clinics had labored hard to provide something for everyone that might come, and so the clinics were divided among all the branches of the profession, which proved a very interesting arrangement and which every member seemed to appreciate.

Just before the close of the meeting the Executive Committee held a meeting to talk over plans for the meeting next year, and it was the opinion of practically everyone present that under no conditions should the clinical day be omitted.

The association will always be under great obligations to the three hospitals for the splendid assistance they so generously gave and for their kindness in providing a bounteous lunch for the visiting doctors, which aided in no small measure in making the enjoyment of the day complete. It is impossible to designate the work of any institution as being better than the other, and all one can say is that they were all splendid.

A rich treat had been provided which came in a measure as a surprise in the special bone clinic which Dr. J. B. Murphy of Chicago had consented to give, and which was held in India Temple at 4 o'clock in the afternoon. A number of very interesting cases presented themselves for diagnosis, and the talk Dr. Murphy gave on each of them will be remembered when everything else connected with the meeting has been forgotten, and no one who was present at that clinic will forget in the years to come the emphatic way Dr. Murphy made it plain that cases of osteomyelitis must be given relief within seventy-two hours of the onset of the disease if the patient is to have the opportunity to save the limb to which he is entitled.

After the close of the clinical day came the smoker, which was just as informal as it was possible to make it, and which was thoroughly enjoyed by all. It was held in the Dungeon of the Lee-Huckins Hotel, which was large enough to accommodate the nearly three hundred doctors who partook of this compliment which was given them by the physicians of Oklahoma City.

Tuesday morning the first regular session was held in India Temple, at which time, after a few brief remarks by the chairman of the Committee of Arrangements and the reading of a telegram from the president of the association, explaining his absence, which was due to the serious condition of a patient, Dr. E. F. Day, vice president from Kansas, presided, and after the customary announcements regarding the various places of meeting, social features for the members and their ladies, etc., and the consent of the members present to omit the reading of the minutes of the meeting, as they had been published in the official Journal, the vice president called for the scientific program and the first paper was presented by Dr. F. M. Pottenger of Monrovia, Cal., who used as his subject "The Early Pathological Changes in Tuberculosis; Their Relation to Physical and Clinical Symp-

toms." After a very liberal discussion of this very able and timely paper, which was opened by Dr. L. J. Moorman and closed by Dr. Pottenger, Dr. Fred H. Albee of New York gave an unusually interesting and helpful paper or talk, which was illustrated by a large number of stereopticon slides, on "The Bone Graft in Plastic Surgery." Dr. Albee may well be said to be an enthusiast in this branch of medicine, but he has the goods to prove what he asserts—and who would not like to be in the same position? One thing sure, everyone who has a good-sized dog had better look out now, for any number of surgeons could be heard remarking that when they got home they were going to look up a few good-sized dogs and try making a few "fish pole" and "dove tail" joints themselves. The association will always be under a great debt of gratitude to Dr. Albee for his work in this meeting.

Following Dr. Albee, Dr. E. H. Skinner gave a very interesting illustrated talk on "Roentgenology in Gastro-Intestinal Diagnosis," which was enjoyed by all present, but which, owing to the fact that it was concluded just at the hour for adjournment for lunch, it was not discussed.

Immediately after adjournment, each state delegation met and selected five members to serve on the Nominating Committee.

At 2 o'clock in the afternoon the sections took up their work in separate meeting places.

Dr. Joe Beeton, chairman of the Section on Surgery, presided, and the following papers were presented and discussed: Dr. W. T. Grove, Eureka, Kan., presented a paper on "Differential Diagnosis Between Gastric Ulcer, Gall-stones and Diffuse Gastritis." Dr. J. E. Gilreast of Gainesville, Tex., who had spent several months during the past year visiting the clinics of Europe, gave some very interesting notes he made on the work he had seen done there, which were thoroughly enjoyed by all present. After this Dr. C. C. Nesselrode discussed the use of heat in the treatment of carcinoma. Dr. John Worley of Dallas, Tex., read a very timely paper on "Anesthetics," and Dr. C. A. Potter of St. Joseph, Mo., closed the scientific work of the afternoon with a very interesting paper on "Primary Sarcoma of the Large Intestines." All these papers were very thoroughly discussed.

At the same hour the Section on General Medicine, which in the absence of both the chairman and vice chairman was presided over by Dr. M. M. Smith of Dallas, who was the secretary, listened to very interesting and instructive papers by Dr. S. G. Burnett of Kansas City, on "Physic and Somatic Palsies of Pregnancy;" by Dr. E. B. Erwin of Wellston, Okla., on "Diagnosis and Treatment of Gastro-Duodenitis;" by Dr. F. W. Froehling of Kansas City, Mo., on "Some Spastic Conditions of the Colon;" by Dr. H. C. Walcott of Dallas, Tex., on "The Diagnosis of Gastric and Duodenal Ulcer;" by Dr. G. H. Moody of San Antonio, Tex., on "Nervous Disturbances Due to Pelvic Disorders;" and the afternoon session closed with a most interesting paper by Dr. F. K. Camp of Oklahoma City on "An Appreciation of the Value of Nitrous Oxid, Oxygen Analgesia in Obstetrics," from an experience of twenty-five cases.

These papers were also very liberally discussed, so much so that it was after 6 p. m. when the session closed.

The only social feature provided for the members of the association was a 6 o'clock dinner which was held in the Dungeon of the Lee-Huckins Hotel, which was entirely informal and which was partaken of by one hundred and seventy members and their wives. This was just as informal as it was possible to make it and was a feature which was thoroughly enjoyed, as it gave an opportunity for groups of the members

to renew former acquaintances and in several ways helped to make the meeting more pleasant.

The Tuesday evening session was, of course, the one session to which all had been looking forward to with great expectancy, for it was at this session that the honored guest, Dr. J. B. Murphy of Chicago, was to give an illustrated address on "Fractures Near by or Implicating the Joints and Joint Infections." Dr. Murphy was at his best and for more than two hours he held his audience spellbound as with his usual magnetism he told of the wonders that had been accomplished for those who within the recollection of the most of those listening to him had been doomed to be helpless cripples, either from accident or disease, and how they had been restored to useful citizenship.

Wednesday Dr. Albee gave a clinic from 7 to 9 a. m. at the University Hospital, where he demonstrated his method of using the bone splint in plastic surgery which he had spoken of the day before. Everyone was highly pleased with this clinic.

At 9 a. m. the general business session of the association opened at India Temple, at which time the secretary-treasurer presented his annual report.

During the past year the necessity for some means of communication between the members of the state associations and the secretary's office other than by means of letters became apparent, and accordingly a bulletin has been published which has been entered in the Postoffice Department at Washington as second-class matter, and which must be published at least four times a year to comply with the requirements to admit it to the United States mail at pound rates. The secretary asked that this plan be ratified and that he be authorized to continue the publishing of the same.

Membership, total enrollment 798.

REPORT OF EXECUTIVE COMMITTEE.

First. We approve the action of the secretary in publishing a bulletin.

Second. We recommend that the usual annual allowance of one hundred dollars be made for the secretary's office.

Third. We recommend that the Southwest Journal of Medicine and Surgery be the official organ of the association for the coming year, and that the contract for the last year be renewed.

Fourth. We recommend that in the future the secretary be instructed when there is no distinguished invited guest to occupy the first evening, to prepare a program of scientific papers for that evening.

On motion the above report was accepted and adopted and the secretary authorized to continue the publication of a quarterly bulletin.

The names of eighty-four members of the state associations were then read and upon motion ordered entered upon the records as active members of the association.

The Nominating Committee then reported as follows:

For President—Dr. Joe Beeton, Greenville, Tex.

For Vice President—Dr. W. S. Sutton, Kansas City, Kan.

For Vice President—Dr. E. H. Martin, Hot Springs, Ark.

For Vice President—Dr. J. A. Walker, Shawnee, Okla.

For Vice President—Dr. S. C. James, Kansas City, Mo.

For members of the Executive Committee to serve three years:

Dr. J. D. Riddell, Salina, Kan.

Dr. St. Cloud Cooper, Fort Smith, Ark.

Dr. W. A. Ball, Wanetta, Okla.

Dr. E. H. Skinner, Kansas City, Mo.

Dr. E. H. Carey, Dallas, Tex.

For Secretary-Treasurer—Fred H. Clark, El Reno, Okla.

Place for holding next annual meeting, Fort Smith, Ark.

On motion, duly seconded and carried, the above report was received, accepted and adopted and the officers declared duly elected.

The president then appointed Drs. L. H. Buxton and J. E. Gilreast a committee to introduce the president-elect, who thanked the association for the honor conferred upon him and pledged to the association his very best efforts for the coming year.

The following resolution was then introduced:

Resolved, That it is for the best interests of the profession that there should be a National Board of Medical Examiners, and we, as members of the Medical Association of the Southwest, pledge our very best endeavors to bring this about.

On motion the above resolution was unanimously adopted and the president was instructed to send telegrams to this effect to Dr. W. L. Rodman, president of the American Medical Association, and to Col. E. L. Legarde, Washington, D. C.

This closed the business session and the scientific program was at once taken up, the first being a paper by Dr. C. S. Pettus of Little Rock, Ark., on "Scientific and Its Relation to Morality." This paper with a very delicate subject in such a high and broad-minded way that the editor wishes it were possible to have copies of this to place in the hands of every young man contemplating marriage.

Dr. Frances Harper of Pittsburg, Kan., presented the next paper on "Pelvic Mechano-Therapy," after which Dr. Bartels of St. Louis, Mo., presented a very interesting paper on "Caudal Anesthesia." This was a new plan of administering local anesthesia, and proved a very helpful paper.

In the Section on Eye, Ear, Nose and Throat, Dr. G. I. V. Brown of Milwaukee read a paper on "Treatment of Hair Lip and Cleft Palate," which was a splendid production and made doubly interesting by the use of a large number of stereopticon slides.

A meeting of the Executive Committee was held at noon, at the Lee-Huckins, with a good attendance and the work for the year was fully discussed and every member urged to do his utmost to build up the official Journal.

WEDNESDAY AFTERNOON, OCTOBER 13, 1915.

At 2 p. m. the Section on Surgery resumed their work with a paper by Dr. A. B. Small of Dallas, Tex., on "Intestinal Tumors," which was freely discussed and followed by a paper by Dr. J. L. McDermott of Kansas City, Mo., on "Nevus." Dr. Clarence Cappell of Kansas City presented a short review on "Prostatectomy," and Dr. B. Belove of Kansas City gave an illustrated lecture on "The Treatment and Prevention of Deformities." The section closed its work by electing as officers for the ensuing year:

Dr. E. H. Skinner, Kansas City, Mo., chairman.

Dr. W. J. Jolly, Oklahoma City, Okla., vice chairman.

Dr. A. B. Small, Dallas, Tex., secretary.

The Section on Internal Medicine began the afternoon session with a paper on "Can Early Diagnosis of Tuberculosis Be Made?" by Dr. S. J. Wolferman of Fort Smith, Ark. This was followed by Dr. Frank Ridge of Kansas City with a paper on "The Treatment of Tuberculosis with Tuberculin."

Dr. W. W. Kendall, superintendent of the State Institution for Deficient Children at Enid, Okla., then read a paper on "What Are We Doing and What Should We Do for the Feeble-minded?" Next came Dr. W. W. Duke of Kansas City, Mo., who gave an illustrated paper on "The Glands of Internal Secre-

tion and Their Relationship to Clinical Medicine." Dr. Duke's paper was unusually timely and full of good suggestions for the practitioner. Dr. W. T. Wilson of Navasota, Tex., read a paper on "Eugenics." Dr. S. H. Landrum of Altus, Okla., read a paper on "What Our Patients Swallow." After a liberal discussion of all these papers the work of the section was finished by electing the following as officers for the coming year:

Dr. M. M. Smith, Dallas, Tex., chairman.

Dr. J. W. Duke, Guthrie, Okla., vice chairman.

Dr. S. J. Wolferman, Fort Smith, Ark., secretary.

In the Section on Eye, Ear, Nose and Throat the following papers were read: "Treatment of Gonorrheal Ophthalmia," Dr. H. Gifford, Omaha, Neb., who was the invited guest of the section for this meeting; "Trachoma," Drs. Peter C. and Daniel W. White of Tulsa, Okla.; "The Eustachian Tube," Dr. L. H. Sarchet, Wellington, Kan.; "Nasal Irritation, Ocular Disturbances," Dr. E. H. Carey, Dallas, Tex.; "Operations on the Frontal Sinus," Dr. R. H. T. Mann, Texarkana, Ark.-Tex.; "Catarrhal Deafness," Dr. W. E. Nixon, Oklahoma City, Okla.; "Some Important Considerations in Cataract Extraction," Dr. John O. McReynolds, Dallas, Tex.; "Report of a Case of Glaucoma," Dr. C. B. Barker, Guthrie, Okla.; "Removal of the Tonsils in the Acute Inflammatory Stage," Dr. Thos. L. Higginbotham, Liberal, Kan.; "Tracheo-Bronchoscopy and Esophagoscopy," Dr. D. L. Shumate, Kansas City, Mo.; and "Some Points in the Treatment of Deviations of the Nasal Septum," Dr. Harold Bailey, Springfield, Mo.

The following officers were elected for the ensuing year:

Dr. M. F. Jarrett, Fort Scott, Kan., chairman.

Dr. E. G. Gwinn, San Antonio, Tex., vice chairman.

Dr. D. L. Shumate, Kansas City, Mo., secretary.

Just before the final adjournment of the association a resolution was introduced and unanimously and enthusiastically adopted, thanking the Chamber of Commerce, the Lee-Huckins Hotel, the press, the citizens of Oklahoma City and the profession of the same city for the splendid manner in which they had entertained the association.

NEW AND NONOFFICIAL REMEDIES.

Since publication of New and Nonofficial Remedies, 1915, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Non-official Remedies:"

MERCURIALIZED SERUM, MULFORD.—A solution of mercuric chlorid in normal horse serum diluted with physiologic sodium chlorid solution. It is proposed for the treatment of syphilis, particularly the cerebrospinal type. It is supplied as:

MERCURIALIZED SERUM, MULFORD, No. 1.—One 30-c.c. ampule containing the equivalent of 1.3 gm. (1.50 gr.) mercuric chlorid with rubber tube and intraspinal needle.

MERCURIALIZED SERUM, MULFORD, No. 2.—One 30-c.c. ampule containing the equivalent

of 2.6 gm. (1-25 gr.) of mercuric chlorid with rubber tube and intraspinal needle.

MERCURIALIZED SERUM, MULFORD, No. 3.—One package of ten 30-c.c. ampules each containing the equivalent of 1.3 gm. (1-50 gr.) of mercuric chlorid with rubber tube and intraspinal needle.

MERCURIALIZED SERUM, MULFORD, No. 4.—A package of ten 30-c.c. ampules each representing 2.6 gm. (1-25 gr.) mercuric chlorid with rubber tube and intraspinal needle.

MERCURIALIZED SERUM, MULFORD, No. 5.—8 c.c. mercurialized serum, Mulford, containing the equivalent of 22 gm. (1-3 gr.) of mercuric chlorid in a syringe graduated in fourths, with needle.

MERCURIALIZED SERUM, MULFORD, No. 6.—A package of ten syringes, each containing 8 c.c. liquid which represents 23 gm. (1-3 gr.) of mercuric chlorid. H. K. Mulford Company, Philadelphia, Pa. (Journal A. M. A., October 2, 1915, p. 1185).

RADIO-REM, OUTFIT No. 4.—An apparatus designed for the production of radio-active drinking water by the action of radium sulphate contained in terra cotta plates. It consists of two plates contained in 250-c.c. bottles; when the bottles are filled with water the two plates impart about 1.8 microcurie (5,000 miche units) to the water in twenty-four hours. For action, uses and dosage, refer to the article on Radium in New and Nonofficial Remedies. Schieffelin & Co., New York (Journal A. M. A., October 9, 1915, p. 1281).

HISTAMINE HYDROCHLORID.—The hydrochlorid of the base beta-iminazolyethylamine (histamine). It is a valuable reagent for the standardization of pituitary preparations.

IMIDO, ROCHE.—A name applied to histamine hydrochlorid.

AMPULES IMIDO, ROCHE.—Each ampule contains 1.1 c.c. of an aqueous 1 in 1,000 solution of Imido, Roche (1 c.c. contains 1 gm.). Hoffmann-LaRoche Chemical Works, New York City (Journal A. M. A., October 16, 1915, p. 1367).

BETANAPHTHYL SALICYLATE.—The salicylic acid ester of betanaphthol. It passes the stomach unchanged, but is split into its constituents in the intestinal tract. It is believed to act as an intestinal antiseptic and to act in a similar way in the bladder. It is said

to be useful in intestinal fermentation, catarrh of the bladder, rheumatism, etc. Malineckrodt Chemical Works, St. Louis, Mo. (Journal A. M. A., October 30, 1915, p. 1553).

BETOL.—A name applied to betanaphthyl salicylate (which see). Merck & Co., New York (Journal A. M. A., October 30, 1915, p. 1553).

PROPAGANDA FOR REFORM.

IODUM-MILLER.—The A. M. A. Chemical Laboratory reports that Iodum-Miller was found to be essentially a solution of iodine and potassium iodid in glycerin containing 1.68 per cent of free iodine. The Council on Pharmacy and Chemistry reports that Iodum-Miller was not eligible for New and Nonofficial Remedies because incorrect statements are made in regard to its composition; because unwarranted therapeutic claims are made for it, and because the application of a trade name to a simple solution of iodine is not to be countenanced (Journal A. M. A., October 2, 1915, p. 1202).

IOD-IZD-OIL (MILLER'S).—Analysis in the A. M. A. Chemical Laboratory indicated Iod-Izd-Oil (Miller's) to be a simple solution of iodine in liquid petrolatum containing, not 2 per cent of iodine, as claimed, but only 0.42 per cent. The Council on Pharmacy and Chemistry found the preparation ineligible for New and Nonofficial Remedies because the composition is not correctly stated, and because the application of a trade name to a simple preparation of this sort is irrational (Journal A. M. A., October 2, 1915, p. 1202).

HEXA-CO-SAL-IN.—Hexa-co-sal-in (Hexa-Co-Sal-In Company, Red Bank, N. J.) is advertised as "a condensation product of familiar composition" and that it is "colehi-magnesium salicylate with anhydrous hexamethylenamin." An examination made by the A. M. A. Chemical Laboratory showed that hexa-co-sal-in is a simple mixture of hexamethylenamin, magnesium salicylate and some colehi-cum preparation. The Council on Pharmacy and Chemistry reports that the statement of the composition of this preparation is false; that unwarranted therapeutic claims are made for it, and that the mixture is unscientific (Journal A. M. A., October 2, 1915, p. 1203).

THE SOY BEAN.—The soy bean is of medical interest: (1) because it contains the en-

zyme, urease, which converts urea into ammonia and carbon dioxide, and hence is used to estimate urea in urine; and (2) because soy bean products have been recommended as foods for diabetics. Street and Bailey of the Connecticut Agricultural Experiment Station report that although the soy bean contains about 25 per cent total carbohydrates, only about 8 per cent composed of sugar, starch and dextrin, may be considered objectionable in a strict diabetic diet. Thus the sugar-forming carbohydrates contained in soy beans fall well within the limit of 10 per cent, regarded as safe for diabetics (Journal A. M. A., October 16, 1915, p. 1372).

SOMNOFORM.—This was originally composed of ethyl chlorid 60 per cent, methyl chlorid 35 per cent, and ethyl bromid 5 per cent. Now, it is said to contain but 1 per cent ethyl bromid. Like ethyl chlorid, somnoform has been used as a substitute for nitrous oxide before ether anesthesia and for short operations, but has been mostly used by dentists for extractions. It is doubtful if the mixture has any advantage over ethyl chlorid. The mortality is less than that of chloroform, but twice that of ether and four times that of nitrous oxide (Journal A. M. A., October 16, 1915, p. 1391).

SOME "PATENT MEDICINES" FOR EXTERNAL APPLICATION.—The following statements of composition is indicated by the reports of various state boards of health, the government chemists and the A. M. A. Chemical Laboratory: Amarol, a "complexion beautifier," is composed of epsom salts 95 per cent and borax 5 per cent. Anti-Freckle Lotion (Gustin's) contains mercuric chlorid 1.5 per cent, alcohol 2 per cent, and water 96.5 per cent. Calocide, for "foot trouble," is sodium chlorid 22.44 per cent, borax about 37.58 per cent, alum about 39.35 per cent, tannin small amounts. Cerol, which "cleans and clears the skin," is boric acid, stearic acid and perfume. Clearola, which will "whiten the skin," is sulphur. Cuticle Acid, to "remove dead skin," is alcohol 10 per cent and oxalic acid 2 per cent. Derma-Royale, for skin affections, is a dilute alcohol-glycerin solution with small amounts of camphor, myrrh, benzoin and possibly other aromatics in suspension. Eptol, a wrinkler remover, is essentially borax 37 per cent, soap and stearic acid 63 per cent. Fatoff was found to be

essentially soft soap. Gloriol Balm, a vanishing toilet cream, is composed of stearic acid, soap and borax 23.7 per cent, water 76.3 per cent. Gloriol Glowene, said to be a substitute for soap, is soft soap. Zemo, for eczema, pimples, dandruff and similar affections, appeared to be a watery-alcoholic solution containing methyl salicylate, thymol, borax, tannic acid, glycerin, menthol and a phenol-like body (Journal A. M. A., October 16, 1915, p. 1365-7).

LACTOPEPTINE AND ELIXIR LACTOPEPTINE.—Lactopeptine is sold under the claim that it contains pepsin, diastase, pancreatin, lactic acid and hydrochloric acid. In 1907 the Council on Pharmacy and Chemistry reported that lactopeptine was practically inert—"essentially a weak saccharated pepsin," devoid of tryptic activity. An examination made by the Council in 1913 confirmed the previous finding. Nearly four months after publication of the last report, the manufacturers protested against the report, claiming that lactopeptine possessed pancreatic activity and contained "loosely combined" hydrochloric acid. The Council now reports that an examination of the market supply demonstrated that a few recently manufactured specimens showed slight (therapeutically negligible) tryptic activity, but that most showed none; the amount of hydrochloric acid was insignificant. Again declaring lactopeptine and elixir lactopeptine ineligible for New and Nonofficial Remedies, the Council points out that, whatever the tryptic activity of the mixture, it is therapeutically useless. Mixtures of pepsin and pancreatin are irrational. The two substances are not indicated in the same conditions, nor can they act together. Under physiologic conditions such mixtures are chemically impossible. In a liquid medium the two substances destroy each other (Journal A. M. A., October 23, 1915, p. 1477).

A THERAPEUTIC ABSURDITY.—Lactopeptine, whether in the form of an elixir, powder or tablets, is a therapeutic absurdity. Even if fresh specimens of the powder, possessing slight tryptic activity, have any advantage over old ones, there is no way of telling which the patient is likely to get, for the trade packages of lactopeptine are undated. In liquid preparations like elixir lactopeptine, pepsin and pancreatin destroy each other (Journal A. M. A., October 23, 1915, p. 1466).

THE N. F. IMITATION OF ELIXIR LACTOPEPTINE.—Nearly forty years ago the essential worthlessness of lactopeptine was brought to the attention of the pharmaceutical profession. In spite of this knowledge, the pharmacists have included imitations of lactopeptine and elixir lactopeptine in the National Formulary under the titles Compound Powder of Pepsin and Compound Digestive Elixir. The N. A. R. D. Journal, devoted to the business rather than the professional side of pharmacy, defends the compound digestive elixir on the ground that "physicians keep right on prescribing it." The pharmaceutical profession should consider that pharmacists will in the end lose the confidence of the medical profession and the public by the tolerance of worthless pharmaceuticals (Journal A. M. A., October 23, 1915, p. 1467).

CARDUI, THE STORY OF A NOSTRUM.—Harper's Weekly (October 23) traces the growth of the Wine of Cardui business. The author, stated to have been employed by the manufacturers, denies that the nostrum will perform the many wonders claimed for it by the manufacturers, and says that there is one miracle that Cardui can perform—it can make money (Journal A. M. A., October 23, 1915, p. 1466).

CAMPBOR, NATURAL AND SYNTHETIC.—Though having the same chemical composition, natural camphor is levorotatory, while synthetic is optically inactive, it being a mixture of levorotatory and dextrorotatory molecules. Synthetic camphor, used externally and in moderate doses internally, has been reported to have the same effects as natural camphor. The evidence is, however, unsatisfactory. The natural product being readily obtainable, there is no warrant for the therapeutic use of synthetic camphor until more conclusive evidence is at hand (Journal A. M. A., October 30, 1915, p. 1555).

Married.

GATES-CROW—In Little Rock, on Wednesday, October 27, Dr. Stanley M. Gates and Miss Sara Crow.

BROWNING-KOERS—In Little Rock, on Wednesday, November 3, Dr. Horace D. Browning and Miss Julia Koers.

County Societies.

FRANKLIN COUNTY.

(Reported by Thos. Douglass, M. D., Sec'y.)

The Franklin County Medical Society held its regular meeting October 6, with a small but enthusiastic attendance. The president, Dr. Warren, presided. Also attending were: Drs. Turner, Blackburn, T. B. Blakely and Douglass. Dr. E. C. Hunt of Mulberry was a welcome visitor.

Dr. Blakely complimented the secretary on the accuracy of his minutes. He said he had never known a secretary to report so fully and completely the meetings of a medical society, and moved a vote of thanks to the secretary, which was carried unanimously. The secretary highly appreciated the compliment.

Dr. Hunt talked of professional irregularities, which he earnestly deplored.

There were some interesting case reports and a full discussion of the treatment which should be accorded the morphin fiends, especially with due respect to the Harrison law. There was some diversity of opinion on the subject. Some thought the habitue of long standing, diseased and broken down, ought to be permitted small doses occasionally; but there was general dissent from this opinion. Dr. Blakely remarked that the federal authorities would surely get anybody who thought he might violate the strict provisions of the law.

The following resolution was read, adopted, ordered placed on the minutes, published in the town papers, and a copy sent to the family of the departed physician:

"On August 21 Dr. Wallace Alexander Carter died at his home in Ozark, Ark., at the ripe old age of eighty-six. He had been in active practice in Ozark continuously for sixty-four years, and only ceased his work when his failing health and blindness made it necessary. He was a practitioner of the old school and had many admirable and noble qualities. He was family physician to a large number of people, who had implicit confidence in his skill as a physician. To the sick his kindly, cheerful manner was most helpful and encouraging. He had the bearing of the true physician. We do well to hold in tender kindly remembrance these depart-

ing members of the old school of medicine. From them we inherit the noble, splendid, beautiful ideals of the great profession. For Dr. Carter's part in promoting these ideals, we are deeply grateful."

Book Reviews.

SYPHILIS AS A MODERN PROBLEM.—By William Allen Pusey, M. D., Professor of Dermatology in the University of Illinois. Price, cloth, 50c; paper, 25c. Pp. 129. American Medical Association, Chicago, 1915.

The following review appeared in *The Journal of the American Medical Association* for September 18, 1915, p. 1051.

This book is a monograph reprinted from the Commemoration Volume issued by the American Medical Association "as a tribute to the medical sciences which made possible the building of the Panama Canal and the Panama-Pacific Exposition."

The publication of this discussion of the present status of one of the so-called three great plagues—syphilis, tuberculosis and cancer—is opportune. Two decades ago tuberculosis, the fellow of syphilis in this triad of diseases, was as little understood by the every-day man as syphilis is today. In the comparatively brief interval of twenty years, a campaign of education and organized propaganda for the combating of consumption has transformed the situation. The forces of intelligent public opinion and of public and private funds, and the power of disinterested men and women have brought into being a great system of physical and educational aids for the tuberculous which have begun to realize their full possibilities. Against cancer our ignorance limits our capacity for effective control. Yet, even in the case of cancer there are large endowments for study, and a consistent campaign for the better education of the public is under way.

Against syphilis, on the other hand, little or no social headway has been made. The confounding of the sanitary aspects of a communicable disease with questions of morals, and the effects of a traditional prudery have stifled advance in the social control of this disease. The United States is conspicuous in this backwardness. In strange contrast with this situation, medical knowledge of syphilis has advanced in the last decade with unparalleled rapidity. At the present time it is safe to rank the strategic position in regard to its sanitary control as equal to that for the control of malaria and yellow fever. In one direction, medicine holds syphilis in the hollow of its hand; two generations of intelligent attack could see it reduced to the status of a sporadic infection. In the other direction, the unwillingness to act of the public, on whom help depends, has prevented all organized effort for the control of this disease. Syphilis is a sanitary problem; that it must and will be solved by society sooner or later is inevitable. Its importance cannot be exaggerated! It breeds misery and perpetuates it. It is a source of public cost, a drain on human efficiency, and a stumbling block in the progress of mortality and decency whose all-pervading influence is appreciated only by those who work with it all the time. Into this situation, Dr. Pusey's book projects itself with a peculiar force. It considers syphilis from the standpoint of its effect on society; not as a disease which medicine is called on to treat. The whole subject is broadly sketched; its course and its

pathology are given in sufficient detail to allow the reader to get a mental picture of the disease. Preceding this, there are three chapters on the history of syphilis, the most complete statement of this subject in English, which furnishes a unique historical perspective. The rest of the book concerns the study of the general problems of syphilis; the prognosis of syphilis; syphilis and marriage; the etiology of syphilis, and the prophylaxis of syphilis. In these chapters, such subjects as the relative frequency of tabes and paresis, the effect of syphilis on length of life, the time when the syphilitic may marry, the prevalence of syphilis, its comparative frequency in men and women, the question as to whether or not syphilis is on the increase, and syphilis and prostitution, are considered. The whole book is a foundation for the last chapter—the prophylaxis of syphilis. Here the author shows how syphilology has finally arrived at a point where the prevention of syphilis is practicable by sanitary measures. He points out what these measures are, and so furnishes the strongest argument for the inauguration of an organized sanitary attack on this disease.

The work is eminently sane and without sensationalism or exaggeration. It does not affront with needless horrors, nor is it written in the spellbinding style of campaign literature. The book is fitted to serve as a guide to a sustained and effective interest in the problem on the part of intelligent readers. It is not a medical text-book, nor is it a primer. It is intended for the intelligent lay reader, but it may be read with equal profit by the intelligent physician. It considers syphilis from a detached point of view, from which point the physician ordinarily does not think of it. It is filled with facts which are carried through to legitimate conclusions, and from which are deduced practical suggestions, and is worthy of the thoughtful consideration of intelligent men and women.

THE MEDICAL CLINICS OF CHICAGO.—Volume I, No. 2, September, 1915. Octavo of 194 pages, 44 illustrations. W. B. Saunders Company, Philadelphia, 1915. Published bi-monthly. Price per year: Paper, \$8.00; cloth, \$12.00.

CONTENTS:

Clinic of Dr. Isaac A. Abt, Michael Reese Hospital.

Contributions by William Allen Pusey, A. M., M. D., University of Illinois.

Clinic of Dr. Frederick Tice, Cook County Hospital.

Clinic of Dr. Walter W. Hamburger, Cook County Hospital.

Clinic of Dr. Robert B. Preble, St. Luke's Hospital.

Clinic of Dr. Maurice L. Goodkind, Michael Reese Hospital.

Clinic of Dr. Ralph C. Hamill, Cook County Hospital.

Clinic of Dr. Charles Spencer Williamson, Cook County Hospital.

Clinic of Dr. Charles Louis Mix, Mercy Hospital.

THE CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume IV, No. 4, August, 1915. Published bi-monthly by W. B. Saunders Company, Philadelphia. Price per year, \$8.00.

Among the important contributions in this volume we find the following:

Talk on Syphilis.

Tumor of the Parotid Salivary Gland.

Traumatic Epilepsy—Removal of Hemorrhagic Epidural Cyst.

Tuberculous Meningitis.

Infantile Palsy of Flexors of Hand and Fingers—Tenoplasty.

Bony Tumor of the Spinal Canal—Laminectomy—Spinal Decompression.

Papilloma of Bladder—Suprapubic Cystomy—Resection of Mucosa with Cauterization.

Compound Fracture of Both Feet—Right foot: Fracture of astragalus and os calcis; excision of astragalus; osetotomy of tibia; insertion of wedge-bone graft. Left foot: Fracture of astragalus, os calcis, and scaphoid; cuneiform resection of tarsus.

INTERNATIONAL CLINICS.—A quarterly of illustrated clinical lectures and especially prepared original articles by leading members of the medical profession throughout the world. Edited by Henry W. Cattell, A. M., M. D., Philadelphia. Volume III, twenty-fifth series, 1915. Published by J. B. Lippincott Company, Philadelphia. The price of this book is \$2.00.

The contents of this volume is as follows:

DIAGNOSIS AND TREATMENT.

"Gonorrhea; Its Complications and Sequelae," by Lewis Wine Bremerman, A. M., M. D.

"Ataxia; Report of Five Cases of Ataxia of Tabes," treated by Dr. William J. M. A. Maloney's Educational Method, with Outline of Method Used," by Morris Grossman, M. D.

"The Cause and Cure of Chronic Purulent Otitis Media," by S. E. Pendexter, M. D.

"Therapeutic Technic," by William Brady, M. D.

"Notes on Some Unusual Causes of Abdominal Pain," by Arthur Newlin, M. D.

"Specific Granular Epilepsitis, the So-called Trachoma," by John R. Wright, M. D.

"The Venous Pulse as an Aid in the Diag-

nosis of Heart Disease," by Thomas E. Satterthwaite, M. D., LL. D., Sc. D.

"The Differential Diagnosis of Hyatid Cyst of the Liver Accompanied with Icterus," by Henri Bertenet, M. D.

"Report of a Case of Echinococcus Cyst in the Liver, Gall-bladder and Stomach," by G. S. Foster, M. D.

PEDIATRICS.

"Observation on the Physical Treatment of the Diseases of Childhood," by William Benham Snow, M. D.

"Pyclocystitis and Acute Nephritis in the Young," by Floyd B. Riley, M. D.

"Cases of Acute Streptococcus Hemolyticus Infections; Osteogenesis Imperfecta; Tubercular Peritonitis," by E. Lackner, M. D.

"Hypophysis Disease in Children," by Allen B. Kanavel, M. D.

BORDERLAND MEDICINE.

"One Hundred Thousand Men Minus," by John Ashburton Cutter, M. D.

"The Ideal Physician as the Citizen-builder," by Irving David Steinhardt, M. D.

"The Advantages of a Library to a Medical Society," by J. C. Wilson, A. M., M. D.

"Sanitation Among the Indians," by Leonard D. Frescoln, A. B., M. D.

"Defects in Our Public Insane Hospital Systems," by Edward Huntington Williams, M. D.

"Medieval Medicine and the Founders of Medical Reform," by Charles Greene Cumston, M. D.

"The Case Against Neo-Lamarckism," by Lawrence Irwell, M. A., B. C. L.

"The Maligner; a Clinical Study," by Bernard Glueck, M. D.

SURGERY.

"War Experiences and Observations in Germany and France," by L. Rahm.

"The Treatment of Fractures of the Lower End of the Radius by Reduction and Contour Splints," by John B. Roberts, M. D.

"Traumatic Injuries of the Nose and Their Treatment," by William Wesley Carter, A. M., M. D.

"The Surgery of Tonsils and Adenoids," by H. H. Amsden, M. D.

OFFICERS OF THE AMERICAN MEDICAL ASSOCIATION, 1915-1916.

Next Annual Session, Detroit, Mich., 1916.

PRESIDENT—William L. Rodman, Philadelphia.
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JUDICIAL COUNCIL—Hubert Work, Pueblo, Colo., 1916; Randolph Winslow, Baltimore, 1917; A. B. Cooke, Los Angeles, Cal., 1918; Alexander Lambert, Chairman, New York, 1919; James E. Moore, Minneapolis, Minn., 1920; Alexander R. Craig, Secretary, 535 N. Dearborn St., Chicago.

COUNCIL ON HEALTH AND PUBLIC INSTRUCTION—H. B. Favill, Chairman, Chicago, 1916; Walter B. Cannon, Boston, 1917; W. S. Rankin, Raleigh, N. C., 1918; H. M. Bracken, Minneapolis, 1919; Milton Board, Louisville, Ky., 1920; Frederick R. Green, Secretary, 535 N. Dearborn St., Chicago.
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COUNCIL ON PHARMACY AND CHEMISTRY—O. T. Osborne, New Haven, Conn., 1916; Torald Sollmann, Cleveland, 1916; M. I. Wilbert, Washington, D. C., 1916; Reid Hunt, Boston, Mass., 1917; J. H. Long, Chicago, 1917; Julius Stieglitz, Chicago, 1917; David L. Edsall, Boston, 1918; R. A. Hatcher, New York City, 1918; A. W. Hewlett, Ann Arbor, Mich., 1918; John Howland, Baltimore, 1919; Henry Kramer, Philadelphia, 1919; C. L. Alsberg, Washington, D. C., 1919; John F. Anderson, Washington, D. C., 1920; F. G. Novy, Ann Arbor, Mich., 1920; George H. Simmons, Chairman, Chicago, 1920; W. A. Puckner, Secretary, 535 N. Dearborn St., Chicago.

OFFICERS OF SECTIONS, 1915-1916.

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OFFICERS OF THE ARKANSAS MEDICAL SOCIETY, 1915-1916.

Next Annual Session, Texarkana, May, 1916.

PRESIDENT—J. C. Wallis, Arkadelphia.
FIRST VICE PRESIDENT—C. J. March, Fordyce.
SECOND VICE PRESIDENT—F. T. Murphy, Brinkley.
THIRD VICE PRESIDENT—O. M. Bourland, Van Buren.
TREASURER—Wm. R. Bathurst, Little Rock.
SECRETARY—C. P. Meriwether, Little Rock.
COMMITTEE ON SCIENTIFIC PROGRAM—Wm. R. Bathurst, Chairman, Little Rock; Frank Vinsonhaler, Little Rock; C. P. Meriwether, Little Rock (ex-officio).
COMMITTEE ON MEDICAL LEGISLATION—Morgan Smith, Chairman, Little Rock; Anderson Watkins, Little Rock; William Breathwit, Pine Bluff; J. C. Wallis, Arkadelphia (ex-officio); C. P. Meriwether, Little Rock (ex-officio).
COMMITTEE ON BOARD OF VISITORS TO THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF ARKANSAS—H. N. Dickson, Chairman, Paragould; N. R. Townsend, Arkadelphia; T. J. Stout, Brinkley.
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COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION—F. B. Young, Chairman, Little Rock; John Stewart, Booneville; St. Cloud Cooper, Fort Smith.
COMMITTEE ON SANITATION AND PUBLIC HYGIENE—C. W. Garrison, Chairman, Little Rock; H. Thibault, Scott; T. M. Fly, Little Rock.
COMMITTEE ON CANCER RESEARCH—M. D. Ogden, Chairman, Little Rock; H. H. Kirby, Little Rock; W. A. Snodgrass, Little Rock.
COMMITTEE ON MEMORIAL TABLET IN MEMORY OF THE LATE DR. JOHN S. SHIBLEY—L. P. Gibson, Chairman, Little Rock; J. G. Eberle, Fort Smith; A. E. Hardin, Fort Smith; Frank Vinsonhaler, Little Rock; M. D. Ogden, Little Rock.

COUNCILOR DISTRICTS AND COUNCILORS, 1915-1916.

FIRST COUNCILOR DISTRICT—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph counties. Councilor, F. L. Nelson, Corning. Term of office expires 1917.
SECOND COUNCILOR DISTRICT—Cleburne, Fulton, Independence, Izard, Jackson, Sharp and White counties. Councilor, L. T. Evans, Barren Fork. Term of office expires 1916.
THIRD COUNCILOR DISTRICT—Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis, and Woodruff counties. Councilor, H. H. Rightor, Helena. Term of office expires 1917.
FOURTH COUNCILOR DISTRICT—Ashley, Bradley, Chicot, Cleveland, Desha, Drew, Jefferson and Lincoln counties. Councilor, E. C. McMullen, Pine Bluff. Term of office expires 1916.
FIFTH COUNCILOR DISTRICT—Calhoun, Columbia, Dallas, Lafayette, Ouachita and Union counties. Councilor, H. H. Henry, Eagle Mills. Term of office expires 1917.
SIXTH COUNCILOR DISTRICT—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier counties. Councilor, C. A. Archer, DeQueen. Term of office expires 1916.
SEVENTH COUNCILOR DISTRICT—Clark, Garland, Hot Spring, Montgomery, Saline, Scott and Grant counties. Councilor, J. B. Crawford, Benton. Term of office expires 1917.
EIGHTH COUNCILOR DISTRICT—Conway, Johnson, Faulkner, Perry, Pulaski, Yell and Pope counties. Councilor, W. A. Snodgrass, Chairman, Little Rock. Term of office expires 1916.
NINTH COUNCILOR DISTRICT—Baxter, Boone, Carroll, Marion, Newton, Searcy, Stone and Van Buren counties. Councilor, Leonidas Kirby, Harrison. Term of office expires 1917.
TENTH COUNCILOR DISTRICT—Benton, Crawford, Franklin, Logan, Sebastian, Madison and Washington counties. Councilor, J. T. Clegg, Siloam Springs. Term of office expires 1916.
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Original Articles.

THE CARE AND MANAGEMENT IN TECHNIC OF A PATIENT BEFORE AND AFTER SURGICAL OPERATION.*

By R. L. Saxon, M. D.,
Little Rock.

It is with both pleasure and interest that I am permitted to share a little of your time in the discussion of a subject which, by reason of its simplicity and commonplace relation to the other features of operative surgery, too often escapes the consideration due it. If we were to unfold the features that distinguish the competent from the incompetent surgeon, we would perhaps more often be directed to the discrepancy in their observance of details. Our ability to discern these advantages depends largely upon our knowledge of the more salient laws of chemistry, physiology and pathology.

The highest functioning energy of a structure may depend upon a properly placed ligature, a coaptation of tissue, a particular dressing or a proper environment. We cannot properly estimate the probable outcome of Nature's effort to repair a tissue, without a fair knowledge of natural cellular function. Upon our knowledge of normal and pathological histology and the effects of physical laws with relation to it will depend the truth or falsity of our prognostications in disease.

The surgeon of today is often able to trace an unfavorable outcome to an operation to an innervating excitement or a seemingly harmless insult to the tissues, which formerly was considered, if at all, in a most trivial sense. We cannot change the laws of chemistry or reconstruct the resistant energy of a cell. The senseless injury to tissues and the often muti-

lating procedures in surgery has received a decided shock through the experimentations of Cryle and others. Conservation of energy is the watchword that will often forestall an otherwise unfavorable outcome to an operative procedure. Experiments along this line have resulted in many innovations, especially with reference to the preparation of the patient for operation. Patients are being operated on now promptly after being received in the hospital, without being subjected to the mental worry and nervous strain usually incident to the days of preparation formerly imposed. Instead of the long-used method of scrubbing the skin and packing, rescrubbing and repacking and fencing off the line of incision with clips, etc., we are content with absolute assurance of safety by washing thoroughly with soap and water, applying a little ether or alcohol and making one or two applications of iodine.

We should in our incisions preserve the continuity of structures as far as is consistent with a preservation of function, but Bland Sutton of London and others consider the severing of muscles, tendons, periosteum, etc., an unimportant matter, as by suturing, less injury is often done than may be sustained by extraordinary efforts to save them.

In our conservation we often go beyond the point of safety, and thus merit no less odium than the tyro who from fear does too little. We might mention as an instance the small opening made by some operators for appendectomy. I believe all good men now make free openings, as the importance of observation and manual exploration is attended by less risk than would accrue from hampered feeling and vision. Appendectomy, as done and recommended by Bodine of New York, is senseless and should merit no consideration other than as an instance of the extreme to which men will go for the purpose of bringing recognition to themselves.

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

The purpose of ligatures is that of approximating tissues and controlling bleeding vessels, and the fewest number at least irritating should be used that will consistently serve the purpose for which they are intended. One unnecessary ligature adds one unit to the sum of baneful items that Nature is compelled to eliminate. Ordinary gut has almost usurped the place of all others, and rightly so, since it is the least irritating and under nearly all circumstances will serve the purpose meant for any other. A nonabsorbable irritating suture often becomes the source of much evil. Often a source of beginning necrosis and a consequent failure of union, and thus is placed the straw that breaks the camel's back in the process of general repair.

In the event of a necrosis and suppuration, we have to deal with a process, a more intimate knowledge of which has led us to discard a number of evils which we formerly employed, believing them to be beneficial. Among them may be mentioned curetage and irritating so-called antiseptics. The nature of tissue repair is such that these means more often serve to prevent the very thing for which they were intended to do. By them we destroy the little villi through which the elements of repair are brought, and also impair the leukocytic walls of protection which serves as a rampart against the invasion of healthy tissues.

To assist Nature in the elimination of objectionable material from an infected area, nothing serves us better than gauze packing. It serves the purpose of both drainage and a stimulant to tissue activity. While it serves admirably as a drainage by capillary attraction, and will under ordinary conditions fulfill its purpose regardless of the position of the patient, we should not lose sight of the fact that in deep cavities and profuse discharges it becomes much more effective where we can turn the patient to such a position as will assist drainage by the force of gravity. Unlike irrigations, gauze drainage will remove the more objectionable material and leave the harmless or beneficial secretions which Nature has thrown out for tissue repair.

Our present knowledge of pathology and the facilities we have of estimating the probable resistance of an individual makes it obligatory to subject our patients to critical examination before subjecting him to extensive operative procedures. The measure of

successful surgery involves far more than mere proficiency in mechanical skill. The distinguishing features between successful and unsuccessful surgery in a given series of operations will be determined by the index to the patients' resistance. For this reason we should, especially in every important operation, when in the least doubt about the outcome, make a blood count, and as far as possible determine the condition of the kidneys, liver and lungs, and note every abnormality that might have influence in the final results. This precaution will often assist us in the selection of a suitable anesthetic. Generally speaking, a tubercular lung, a diabetis, or a profound toxemia would preclude the use of an ether or chloroform anesthesia. With our increasing knowledge of the effects of different anesthetics the number of inoperable cases likewise diminish.

With reference to the post-operative care of a patient, I would suggest that after abdominal operations especially, the recumbent posture be maintained until complete rest is secured, since it is more conducive to free breathing and less disturbed circulation. A hypodermic of morphia should be given, if necessary, to induce quietude and relief from pain incident to injured nerves. The resort to strychnin, nitroglycerin, digitalin, caffeine, etc., is being discarded as a stimulant except in isolated cases, since they probably exercise little or no favorable influence upon constructive metabolism, a feature upon which so much depends for good or ill to the patient.

Sterile or unsoiled dressings should remain undisturbed until some special necessity arises for their removal, a necessity that may often be obviated by eliminating such irritating material as skin clips, wire, etc. The argument that skin clips offer less likelihood of infection would also infer a likelihood of a deeper infection where a more vulnerable tissue is sutured with another material.

The patient should be given water as soon as there is a reasonable assurance that he will retain it. This time may vary from two or three hours to ten or twelve, or even longer, depending upon his freedom from nausea, his normal return to comfort, etc. But little or no food should be given until the bowels have been emptied. It may be necessary to move the bowel, for which the employment of a saline or oil is best.

The rules which were formerly in vogue specifying special times for catheterization, setting up, getting out of bed, etc., are now considered obsolete injunctions. We are now permitted greater liberties in the exercise of common sense and good judgment. The varying conditions of our patients by reason of differences in age, susceptibility to impressions, seriousness of complications, effects of anesthesia, etc., precludes the adoption of unvarying customs in the post-operative care of our patients.

The patient should be seen at least once a day for the first few days, and at each visit we should ascertain whether or not our instructions have been complied with. Inquiry about the details engenders a feeling of security in the mind of the patient, and is at least conducive to greater comfort.

In summing up our accomplishments as surgeons, we may be able to congratulate ourselves because of our mechanical facility. We may felicitate ourselves because of the applause we have evoked from the galleries by announcing the performance of a hundred or a thousand appendectomies, but imagine our chagrin if Nature could proclaim in unmistakable terms all the insults we have inflicted upon her in making this record. To the physician she often pleads for assistance and to the surgeon for mercy, and only by an intelligent co-operation of the two can the medium of greatest safety be obtained. Truly, the blatant claimant of wonders upon either hand would be shamed to silence if he could but see the violence he had committed. If, therefore, we must operate, let us summon to our command every assistance available, the least of which is certainly not the little details in the preparation and care of the patient before and after operation.

To sum up:

1st. Examination of all organs and abnormalities.

2d. Examination of excreta, secretæ, blood and lymph.

3d. An intelligent selection of a suitable anesthetic.

4th. Cleanse site of incisions thoroughly with soap and water, apply a little ether or alcohol, and paint thoroughly with iodine.

5th. Cut smoothly and directly and leave all unconcerned tissue unharmed, if possible.

6th. Use a ligature whose size and substance is conducive to the least irritation, approximating neatly without strangulation.

7th. Thorough drainage, gauze packing, unless objectionable for special reason. Saline injection when necessary to raise fluid pressure.

8th. Recumbent posture first three days or until quiet. Morphine when necessary to induce rest. Water as soon as it can be retained. Catheterization after fifteen to eighteen hours, if necessary.

9th. Enemas for gaseous distention. Oil or salts for thorough purgation after third day. Ordinary diet in limited quantities after thorough purgation.

10th. Patient should be permitted to sit up or get out of bed as soon as he feels strong enough.

11th. Remove dressings only as necessity indicates, either from being soiled or for inspection of the wound.

CARBON DIOXID SNOW IN DERMATOLOGY.*

By D. W. Goldstein, M. D.,
Fort Smith.

The object of this paper is to bring before you a remedial agent which I think is not used as often as it should be. Carbon dioxide has already established itself as an able substitute for liquid air, x-ray and caustics. In four years of specializing in dermatology I have seen no case of neoplasm of the skin, benign or malignant, that would not give as good results with carbon dioxide snow as with the x-ray and other procedure. For that reason I present this paper.

Carbonic acid gas is used in dispensing soda water. From this carbon dioxide snow is made. The gas in the tank is under nine hundred pounds pressure to the square inch; when we collect it the rapid escape and lessening of pressure to that of the atmosphere produces a solid substance. The temperature of the snow is about 110 F.

Carbon dioxide snow was first used by Pusey, of Chicago, in 1905, thinking it to be

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

an able substitute for liquid air. It has proved itself beyond his expectations.

The gas is cheaper, more easily used, quicker in its action, better results gotten with it, and the cosmetic results better than obtained by other methods. The scar is very thin and soon disappears. There is no contraction of the scar.

Technic of application is simple: Purchase a twenty-pound drum of gas. Have a stand made length of drum, elevate one end about eight inches so that the outlet will be lower. In this way a more solid piece is formed. Have a chamois bag about four inches in length and two inches in width. This bag should be made with a drawstring. Tie this around the outlet for the gas. Let the gas escape slowly and intermittently, for this aids solidification. The solid substance is removed from the chamois bag and cut into any shape or size desired. The operator should handle the snow with chamois. There are numerous molds on the market, but if one wishes to be burdened with trouble, buy one. There is no necessity for a mold; but if one should be used, would advise one as suggested by Drs. Cooper and Wood of Fort Smith.

Have two or three funnels made in sizes from one-fourth to one inch. Place the funnel in a hole bored into wood. This acts as a support. The snow is packed in this with an iron rod. The gas, after solidification, is ready for use. The amount of pressure varies in different conditions. I cannot tell you exactly the amount of pressure to apply, but after using it a few times one becomes accustomed to the amount of pressure and length of time for use. Superficial conditions do not require the time or pressure, thick or horny conditions need. After using it, there is a thrombosis of the vessels, destruction of the pathological cells with a severe inflammatory reaction. The normal cells are strong and soon reproduce themselves. The abnormal cells are already weak and do not regenerate. Immediately upon removal of the solidified mass, the skin is found to be considerably depressed. The tissue feels like frozen meat. This depression soon disappears as thawing takes place. After thawing, there is a slight moisture on the surface, followed by a slight erythema. In a few minutes there is a wheal, which soon becomes well developed, then a vesicle or bullae. This may take place from a few minutes to hours. In working around loose tissue there is a decided edema, which

subsides in twelve to twenty-four hours. There is usually not much pain to this treatment, but sometimes there will be severe pain working around bony prominences. For this pain, cold applications soon give relief.

The after treatment is simple. After freezing, nothing is done at the time of operation. The patient is instructed to return to the office the next day. If a bullae has formed, open it from the bottom, let the serum escape. Apply no dressing unless the clothing interferes, then a protective dressing is applied. Of course, if any infection takes place, this is treated in the usual way. The time for healing varies as to the amount of pressure and length of exposure; usually ten days to two weeks.

The conditions which have responded to this treatment by me are the following:

Senile keratoses should always be removed, for it is a fertile ground for epithelioma development. Carbon dioxid snow acts admirably for this.

In lupus erythematosus it is a remedy par excellence. Two or three applications are usually necessary. You can apply snow numerous times without fear, for it only affects the pathological cells. Superficial epithelioma respond readily. Angioma or nevi give good results in selected cases. Warts and moles are easily removed.

Have recently applied the snow to a very rare and unusual case—xanthoma tuberosum—Fig. 1. This condition is extremely rare. There are a very few cases reported especially in children, though the lesion is similar to the xanthelasma or yellow plaques found in the eyelid of the adult. This lesion manifests itself usually as a yellow, purplish papule or nodule, which sometimes coalesce to form plaques, usually confined to the joints and extensor surfaces.

There is much discussion over the pathology of this lesion. It is at present thought to be embryonic connective tissue which has undergone a fatty degeneration. It is often associated with diabetes and disease of the liver. Syphilis is also thought to play an important part in the etiology.

My cases are two children in the same family, one ten and the other five years of age. Lesion not congenital and no history of syphilis or any skin disease in the other members of the family, and no lesions in the other three children.

The lesions are papules or nodules, which often coalesce to form plaques, as you see on



Figure 1.

the elbow and wrist. The color varies from a chamois or yellow to a purplish tint, as those you see on the knuckles—Fig. 2. The consistency varies. Some are soft; others are hard. They are symmetrical—elbows, knees, knuckles, buttocks and ankles. The extensor



Figure 2.

surfaces seem to be preferred; plaques also occur on the eyelid and neck.

I cannot ascertain the cause in these cases. Patient is well nourished; no sugar nor bile in urine; no history of syphilis in the family. Have not been able to do a Wassermann on them, but will do one.

Have applied carbon dioxid snow to the lesion on the wrist as shown in the picture. It is too early to give any report of the final results. Bernstein of Philadelphia has treated one case with the snow with good results. I mention this merely as a preliminary report of a very interesting and rare case which again shows the unlimited field and the great possibilities of carbon dioxid snow in dermatology.

If I have conveyed to you that certain skin conditions present phases in which, by carbon dioxid snow, the dermatologist can so remove them without producing the disfiguring surgical scars, then I feel that this paper has accomplished its purpose.

DISCUSSION.

Dr. Bathurst (Little Rock): I have listened with a great deal of pleasure and interest to Dr. Goldstein's most excellent paper on the efficiency and value of this new caustic. I think one point that we might emphasize—and to my mind the most important factor—is the duration of the freezing. Ten to thirty seconds is about the usual application. Deep freezing and further destruction of the tissues is often indicated, but to my mind a surgical operation would be an improvement.

In the superficial lesion, like that of senile keratosis, I have had excellent results with trichloroacetic acid.

Dr. C. M. Bourland (Van Buren): I have had some experience recently in cases of lupus erythematosus, and my memory of these growths is rather unpleasant. I would like to ask Dr. Goldstein to state in closing as to the use of carbon dioxid in cases of ulceration. I frequently find cases which get along very nicely with the use of the saturated solution of trichloroacetic acid. In the case I refer to I made use of this remedy. I think it produced an edema. I found from my experience in this particular case ulceration was necessary to get the best result; so applied the acid daily and case is proceeding very nicely. I believe that possibly I should have tried the carbon dioxid. I was speaking to the essayist yesterday concerning his treatment. I would like to ask the doctor to state if he has had experience with carbon dioxid in these ulcerated cases.

Dr. Goldstein (closing): In regard to Dr. Bourland's question as to my clinical experience with the snow, I would like to know the age of the patient, and the duration of the disease.

Dr. Bourland: Patient is seventy years of age; is the subject of arteriosclerosis; had this treatment ten years ago; was apparently cured of this trouble. The dermatitis is very slight; very thick, dry, scaly layers of cuticle appeared over the area of infection. It was never cured, but rather healed over. Just recently, in the last few months, it has recurred in the same locality.

Dr. Goldstein (resuming): I would recommend the carbon dioxid method. You probably have a case of epithelioma with more or less ulceration. If your diagnosis is clear, I would prefer the carbon dioxid snow rather than the trichloroacetic acid. There is no harm resulting from the use of the snow, and I should surely use it in your case, provided your diagnosis was clear, and it was clear in that case.

PAPILLOMA OF THE BLADDER AND ITS MANAGEMENT.*

By Dr. Allen E. Cox, M. D.,
Helena.

Of all tumors of the bladder, the papilloma is the one most often met; it is benign, as a rule, usually pedunculated, projecting into the bladder like a cauliflower and located, as a rule, trigonum. It represents an overgrowth of the mucous lining of the bladder, especially in multiple variety when the tumor is broad, flat and sessile; this type is not very frequent, but far more likely to become malignant.

The most common symptom of vesicle papilloma is hematuria, coming on intermittently. Without cause blood appears in the urine, to disappear again as suddenly as it came; it comes mixed with the urine, as a rule, but sometimes appears at the end of urination. The intervals between attacks vary from weeks to months or years, sometimes free, again scant, the hematuria occasionally being so slight that the patient does not notice it until by accident it is discovered by a urinalysis or otherwise.

The amount of vesicle disturbance is not very great unless the tumor is situated at or near the urethral opening, thereby interfering with proper evacuation of the bladder.

The diagnosis can usually be made from the clinical symptoms, but this should always be supplemented by cystoscopic examination of the bladder when possible. Many of us will recall a few years ago when Dr. Bransford Lewis demonstrated before this society the technic of cystoscopy the bladder along with catheterizing the ureters. In his hands this procedure appeared to be easy, but not so in mine. My first attempt to cystoscope the male bladder was not satisfactory; in fact, it was a failure, due to one or two or three things; but blood-stained or muddy urine was

one of my worst obstacles and is a very common cause of failure.

A case in point herewith reported is perhaps not out of place. G. L. G., male, aged fifty-four years, married, came to me on January 11, 1915, with the following history: He first noticed that his urine was highly colored about a month prior to this time, which became deeper and deeper discolored until he decided that blood was present in his urine, and he consulted his physician, who treated him for hematuria for about three weeks without affording him any relief. A chemical and microscopical examination of his urine was negative, with the exception of the hematuria. A cystoscopic examination on the 12th in the knee-chest position was not entirely satisfactory and the procedure was repeated on the 14th, revealing the presence of the small tumor in the trigone. Dr. Orr was present at the second cystoscopy, and able to see the tumor. On the 17th I did a cystoscopy, suprapubic, and removed three papillomata, one medium size, and two small, from the trigone of his bladder. His recovery was uneventful and he left the hospital for his home, February 15. A letter received from him a few days ago says: "The wound is entirely well and has been for some time, and does not bother me."

Other cases may be cited, but the above is typical. My experience in handling this class of tumors has been very satisfactory.

PELLAGRA.*

By J. T. Perry, M. D.,
Greenwood.

In dealing with this subject, no effort will be made to go fully into this very important question, but simply to set forth as briefly as possible some facts that have come up mostly in our own experience with over fifty cases of the disease during the last four years.

"Pellagra is a chronic, progressive, constitutional disease, more prevalent in warm than cold climates, with exacerbations that occur in the early spring months. Clinically it is characterized by dermatitis, stomatitis, gastritis, and later in its course by diarrhea, loss of flesh and cerebrospinal symptoms."

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

*Read before the Tenth District Medical Society, September 21, 1915, at Fort Smith.

ETIOLOGY.—As to the cause of this disease, no universal opinion has been reached; the more recent writers, however, agree that it is strictly of dietary origin. Among these writers I wish to mention Dr. Mizell of Atlanta, Ga., who has treated thousands of cases during the last six years, and Dr. Goldberger, chief of pellagra investigations of the U. S. government, covering a period of a little over two years.

We have treated all of our cases on that basis, and for the purpose of this discussion, will accept that theory. Most of our cases have been among the poorer class who go to the stores for almost everything they eat, and, on account of its cheapness, buy foods that can all be classed under the head of carbohydrates, with almost a total absence of milk, eggs and lean meats, which are rich in proteids. Of course, it is apparent that well-to-do people from some peculiarity of diet might eat mostly of carbohydrates, such as jelly, preserves and pastry, and two of our cases have been in such families, but otherwise among the very poor who live in the smaller towns. We have never seen a case in the family of a well-to-do farmer.

To quote Dr. Goldberger exactly, he says: "There is no question that the disease is caused by the continual consumption of an unbalanced, one-sided, nonnitrogenous diet, and that it is unknown in the army and navy, where a balanced ration is issued."

Dr. Mizell has made the same observations, except he goes one step further and points out the new commercial cooking fats, now so much in use, as the chief of sinners in the causation of the disease, pointing out that we have always had all the other carbohydrates, while we have only had the cotton seed cooking fats during the last ten years, and that pellagra follows in its wake. Our experience in all our cases tends to support that theory.

In support of this theory he gives the analysis of a number of the vegetable oils found in our common articles of diet, namely, corn oil, sunflower oil, cotton seed oil and nut oil, and that the peculiar constituent of these oils is linolein, in contradistinction to olein, palmitation and stearin, which are found in animal fats. It is further claimed that linolein is very unstable, and when exposed to air, heat or moisture, it immediately begins to undergo a process of fermentation or oxidation, which renders it unfit for food, and that

when the animal fat in the human economy is replaced by any of these vegetable fats, that loss of flesh and vitality begins, followed by all the symptoms we find in pellagra.

DIAGNOSIS.—The average case of pellagra is very easy to identify. Diagnosis can usually be made by the dermatitis alone when this symptom is characteristic, yet I believe there are many cases who never present this lesion, for it is only upon exposure to sunlight or other irritating influence that this symptom develops. I have never seen it on any part of the body protected by the clothing, except upon the elbows, shoulders, hips, etc., of patients who were confined to bed.

Another early symptom which is fairly characteristic is the appearance of the tongue. Early in the course of the disease the tongue becomes red, sensitive and denuded of its epithelium, especially on the dorsum; the patients complain of a burning or scalding sensation, and sometimes this burning extends down the esophagus to the stomach. About this time the pellagrin usually gives a history of constipation, which, however, is soon followed by diarrhea and especially in warm weather.

Another common symptom is a burning of the hands, face and feet, even before any dermatitis develops, and I know of no other conditions in which this peculiar burning is so annoying.

Nervousness and insomnia develop later in the disease, and are very grave symptoms which are not relieved by ordinary treatment, improving only as the condition of the patient improves.

And last, but not least, is a factor to be considered in arriving at a diagnosis—that of the diet of the patient during the last two or three years. Most of our cases have been among the poor. All have been found to be living on a carbohydrate diet and all have been using the cotton seed cooking fats. Two of these had only used it from early summer, when their home-made lard gave out, till hog-killing time.

The time of the year in which the dermatitis develops, and which is the one symptom that brings them in for treatment, is not to be overlooked. Nearly all cases develop in the first warm spring days. Sometimes they think it is only sunburn and will wait till the hands become fissured and ulcerated before

they consult a physician; but the disease is becoming so common now that even the laity can recognize it when the dermatitis is typical.

PROGNOSIS.—We are beginning to feel now, with our present knowledge of the etiology of this disease, that the average case of pellagra is not the deadly malady that we thought it to be a few years ago. For when seen reasonably early, before permanent injury to the brain and nervous system is done, and properly handled, I believe that all cases can be cured. Of course, it is apparent to everyone that the longer the patient has been sick and the more flesh and strength he has lost, the longer it will take to restore him to normal health; but barring intercurrent diseases, all average cases with the proper diet and management should recover entirely.

In the senile and in those suffering from tuberculosis or other wasting diseases, the outlook is very grave. Diarrhea and mental symptoms develop early, and where the mentality of the patient is much affected, even should the patient get better he would remain insane and spend his remaining days in an asylum.

TREATMENT.—From what has been said concerning the nature and cause of pellagra, it is obvious that the treatment is mostly dietetic. The one-sided, unbalanced diet the patient has had for the last several years should be replaced by a well-balanced ration, or still better, I believe by a diet rich in proteids for the first few weeks or months, at least till the patient begins to gain in weight, then other articles added till the balanced diet is reached.

The diet recommended by all the most recent investigators is fairly agreed upon. I will give here the one recommended by Dr. Goldberger, giving the articles in their relative importance. Fresh lean meat, preferably beef. Milk, fresh and sweet. Eggs soft cooked or raw, and beans and peas dried, but not canned. With flour bread, as it contains less carbohydrates than corn bread.

It is remarkable how these patients will take to this diet. Several of ours, when asked about their appetite, have said, "My appetite is good, if I could get what I want," and when asked what they wanted, would say, some lean meat, milk or eggs. I have seen some who claim they never liked milk before, simply crave it when they develop pellagra.

Of course, anyone with the gastrointestinal disturbance that we find in some of our patients could not eat and digest this diet without some help. We therefore give them one or two drams of the best essence of pepsin we can get, after each meal, with or without hydrochloric acid, as is indicated. If the appetite is not good we combine this with tincture of nux vomica, ten minims till it improves. For the stomatitis we give either potassium or sodium chlorate, both as a mouth wash and internally. The chlorates being eliminated largely by the saliva relieves the sore mouth very readily. It can be combined with the pepsin and acid if desired.

One other remedy much in vogue among Southern practitioners, and which we have given to all our patients, is calcium sulphid. Calcium sulphid has been given for years, empirically perhaps, for psoriasis, eczema and other skin diseases. Also for boils, carbuncles and other suppurative conditions. So with this same end in view we have given it to all of our patients as long as the dermatitis lasted, with very gratifying results. It does certainly seem to facilitate the healing and shedding off of this dead and dried cuticle. As calcium sulphid is very unstable, the tablet triturates usually found on the market are worthless. It should be ordered in gelatin-coated pills and in small amounts, say one-sixth to one-fourth grain to the pill. We give such pills, from one-half to one grain at a dose, one-half hour before meals.

As a local application for the dermatitis to relieve the intense burning, we give a 5 per cent ichthyol salve, with instructions to keep the parts covered lightly. For the nervous symptoms and especially the insomnia, we give veronal in from five- to ten-grain doses. One dose at bed time is usually sufficient for the night.

As these patients are very susceptible to morbid impressions, the expressed attitude of the physician and friends in their presence is of great importance. They should be assured that if they follow instructions as to diet, medicine, bathing and staying in the shade, they will get well.

REPORT OF CASES.

Case No. 1. Mrs. C., housewife, aged thirty-six, weight seventy-seven pounds. Her previous diet for years had been carbohydrates,

cereals, molasses, jellies, preserves, pastry, fried potatoes, etc. Claimed to have used cotton seed oil every year only from about April or May till hog-killing time, which was about Christmas. Health had been failing for a little over a year, and had been in bed since April. I first saw her in August, 1912. She had had the dermatitis since April, and diarrhea since June. Diagnosis of pellagra had been made by local physicians. Appetite poor, temperature normal, heart and liver normal. Patient very weak from exhaustion. Bowels were moving from one to twenty times a day. Stomatitis moderate.

Treatment: I gave her as near a proteid diet as possible. Roast beef, milk and eggs, but very little water, with calcium sulphid one-half grain before meals and the pepsin and hydrochloric acid after meals. Diarrhea checked immediately; patient began to gain in weight and strength, gaining about a pound a week till her normal weight was reached (110 pounds); has been well, doing her ordinary house work, including her family washing, ever since. I saw her in August of this year and she declares she is in better health than for years.

Case No. 2. Mrs. D., aged twenty-two, weight ninety-eight pounds. Her previous diet had been sweets, starches and fats. Has used cotton seed oil cooking fats exclusively for three years. Had been failing in health for two years. Had been in bed three months, and had been treated for typhoid fever. Came for treatment in September, 1912. Dermatitis and stomatitis was severe, the saliva simply drooling from her mouth. Diarrhea also bad.

This patient was placed on milk diet, as mastication was impossible on account of sore mouth. She was given the full treatment, including the chlorates internally. The diarrhea checked; the sore mouth was well in a week when she was placed on beef diet with her milk, and later peas was added. She made an uneventful recovery. Her menstrual periods, which had been absent all summer, reappeared in January, 1913. She became pregnant in June of that year, and later we delivered her of a twelve-pound boy. Had to use instruments; had a severe laceration, which, however, healed by first intention; has raised a fine, healthy baby and today weighs 140 pounds.

Case No. 3. Mrs. F., aged twenty-three, weight eighty-four pounds. Married two years. Health had been failing ever since baby came, which was now six months old. I saw her in July, 1913. Her condition was about the same as Case No. 2, and treatment the same. Her diet and medicine was too expensive for her husband, so he left her. Her baby died a few months later, but in spite of all that, she got well, remained well all last year, and picked cotton all last fall. Have not seen her this year, but notice in the newspapers that she is suing for divorce, so suppose she is feeling well.

Cases Nos. 4, 5 and 6. Mr. C. and two little boys aged eight and ten years. They were typical, but not severe. First saw them in July, 1913. Put them on same treatment. They were well by December, 1913. They are farmers and worked in the field both last year and this, but have had no recurrence of the disease.

Case No. 7. Mrs. L., aged seventy-two; widowed; living with her daughter. Previous diet strictly carbohydrate. Family used cottonseed oil for years. Patient had eaten no meat for several years; did not like milk or eggs. Saw her in August, 1913. Dermatitis, stomatitis and diarrhea were severe. Patient was placed on same treatment, except she would eat no meat, but did eat milk and eggs, beans and peas. She recovered completely and has passed through two summers, and today is in as good health as she has been for the last ten years.

We treated five cases in 1914, all of which made complete recoveries and have had no recurrence up to this time, but for the sake of brevity will report only one in detail.

Miss W., unmarried. Good health until March, 1914, when she developed stomatitis, dermatitis, and a little later diarrhea. First saw patient in August, 1914. Her weight at that time was seventy-three pounds. Was very weak, and was a raving maniac, cursing and swearing and using all kinds of obscene language. Her parents told me she had not slept an hour in three weeks, neither had let the family sleep on account of her raving. Gave six grains of veronal, which had her sleeping soundly in about forty minutes. I had gone there on the train, so had to spend the night. Repeated the veronal at one o'clock that night and she slept soundly.

Put her on same treatment as the others, and in spite of her insanity she ate the meat ravenously. Diarrhea checked, she began to gain weight and strength, till today she weighs 126 pounds and is entirely well. I saw her in August and she is in better health than for years.

We are treating fifteen cases now who are all improving, gaining from one to two pounds a week, and I feel sure they will all make uneventful recoveries.

In conclusion, I wish to repeat that it is my belief that the disease is essentially of dietary origin, the same as scurvy, is non-contagious, noninfectious, and when seen early and properly managed, all cases can be cured.

Our greatest work, however, lies in prophylaxis, for it must be apparent to everyone that if the disease is caused by the consumption of a one-sided, unbalanced diet, it can be prevented only by a systematic campaign of education along dietary lines.

CORNS—TREATMENT OF.

Dr. Gaucher, in *Quinzaine therapeutique*, recommends the use of the following paint, which, he states, will remove the most inveterate corns:

R Resorcini,
Acidi Salicylici, ana gr. xv.
Acidi Lactici,
Collodii flexilis, ana 5iiss.
Misce. Fiat pigmentum.

“To be applied for five or six days in succession.”

The foot is then well soaked in hot water, and the collodion lifted off, bringing the corn away with it.

Urticaria will almost invariably yield if the patient uses an alkali and quinin.

The special features of syphilitic eruptions are asymmetry and polymorphism.

Free action of the bowels should always be maintained in scarlet fever. The occurrence of albuminuria is generally preceded by a state of high arterial tension, which can be relieved by aperients.

In edema of the lungs of cardiac origin a small dose of morphin often does more good

than all the stimulants. It may be the only treatment needed.

—The Journal of the New Jersey Medical Society.

We have received the November issue of The Journal of the Arkansas Medical Society, and find it full of good things from cover to cover. There are many good things to be found in this great state, and not the least of them is the splendid medical profession. —Bucks County, Pennsylvania, Medical Monthly.

GIVING CASTOR OIL.

When castor oil has been ordered for a patient, the unpleasantness may be avoided if given in a glass half full of very warm water with a teaspoonful of sugar and enough lemon or other extract to flavor it. The oil does not adhere to the glass, does not taste unpleasantly, nor throw off any odor. Another way is to warm the oil by placing the bottle in hot water, and then pour the dose into as much cold milk as can be taken in one generous swallow. Do not stir the mixture. Only the milk will be tasted.—Good Health, Battle Creek, Mich.

Note.—The sugar and water should be put in first with flavoring, then add the oil.

THEORY AND PRACTICE.

All advance in science comes from a combination of theory and practice, or rather, from a successful application of theory to practice. In this way what seemed to one generation the climax of theory becomes to the next generation only a very obvious practical scientific advance. There is no real opposition between correct theory and correct practice. Practice cannot dispense with theory and theory is sure to become unreal and fallacious when not reduced to practice in some way. The greatest discoverers—Galileo, Pasteur, Kelvin, Lister and practically all the great discoverers in medicine—are always theorists and men of action as well. The opposition between theory and practice is a myth, fostered largely by the bungling theorist who is unable to put his theories into practice, and by the bungling “practical man” who is unable to express the theory which underlies his practice.—Journal A. M. A.

THE JOURNAL

OF THE

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DR. WILLIAM E. BATHURST, Editor.

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ADVERTISING RATES.

Upon request, a schedule of rates will be furnished.

ANONYMOUS COMMUNICATIONS.

Anonymous communications will not appear in the columns of this Journal, no matter how meritorious they may be.

Editorials.

COMPLIMENTS OF THE SEASON.

The Journal wishes every member of the Arkansas Medical Society a Merry Christmas and a Happy and Prosperous New Year. The Journal hopes the new year will find every member advancing in medical science for the benefit of his fellows, and we know of no happiness preferable to that which comes from helping our fellow-men and making this world, to which we come uninvited, a better and brighter place to live in, more free from disease, poverty and misery than when we entered it; for that is the mission of the physician.

AN EXPLANATION—AND A PERHAPS.

Frequently we receive inquiries as to when certain papers read at the last annual meeting will be published. We are rarely, if ever, prepared to give a definite answer until shortly before publication of the next issue of The Journal. The reason is that there is no rule of precedence.

We publish whatever seems most appropriate for each issue. Suppose, for instance, there were papers on pellagra, smallpox, diphtheria, etc., and suppose at the time of going to press there should be an outbreak

of any of these diseases, it would palpably be apropos to publish a paper on that subject.

But there is a "perhaps" attached to all papers. The Council has entire jurisdiction over the publication of our proceedings, and only those having recognized scientific merit are used. Perhaps some will never be published, but will be filed away, as all papers, after being read at the meeting, become the property of the State Society.

DUES ARE NOW DUE.

The dues for 1916 are payable this month—not in January. Two years ago an amendment was adopted to this effect, also requiring the state secretary to drop from the rolls all members whose dues are not paid and certified to by March 1.

The annual dues are small; pay them and get the matter off your mind. It is no part of the duties of your county secretary to call on the members or even to send reminders by mail. He gives his services without pay and the least the members can do is not to increase his work, but rather to help him in all ways possible. The prosperity of the society depends upon the support and co-operation given it by the members. It is quite true that a physician's patients do not always consider the payment of his bill as a matter of business, as they do other bills; but that does not afford a good excuse for the physician following suit—rather, he should set an example.

In making the collection of dues in December mandatory the State Society is in line with the recommendations of the American Medical Association, which hopes to make the rule universal throughout the United States. Indeed, most of the states are already in line. Lest you forget, send in your check the day you read this reminder, so that your county secretary may not be delayed in making out his report on January 1.

PELLAGRA APPEARS TO BE A COMMUNICABLE DISEASE.

Recent experiments by Joseph Goldberger of the U. S. Public Health Service would lead one to believe that the cause of pellagra had been solved. According to Goldberger, no one will develop pellagra who consumes a well-mixed diet. This theory does not account for pellagra in the suckling infant, nor does it

entirely account for it in those who are well nourished.

Pellagra with us is a recent disease. The food of the farming and labor element of our population in the South is better now and of more variety than at any time in the past. If we accept this theory as final, then we stop investigating. Pellagra appears to be a communicable disease. I have seen whole families with it, even the babe at the breast being a victim. Have seen it occur in the well-to-do, in people who have had an abundance of food, were in fine health and well nourished, suddenly develop acute pellagra.

A few days ago I read an article in the New Orleans Medical and Surgical Journal by a Louisiana physician, whose name I do not now recall. He advanced the theory that pellagra was a disease contracted from "sore mouth disease" in dogs, the carrier being the fly or flea. "Sore mouth disease" in dogs is a new disease of dogs, according to the planters and dog fanciers. They say that they had never seen it until the last eight or ten years. The dogs affected with this disease would not eat, saliva constantly dribbled from the mouth, rapid emaciation and death. During the warm summer, flies constantly tormented the afflicted beast. In several localities in this state where we have had a so-called epidemic of pellagra this year, the "sore mouth disease" affected dogs in those communities. Now, in rural districts and among the poorer people, man's faithful friend, the dog, is found in almost every house. In this connection I wish to mention the following:

Two beautiful girls, sisters, aged fourteen and sixteen, daughters of one of the best families in a city of thirty thousand, suddenly developed acute pellagra with all the symptoms, sore mouth, dermatitis, disgust for food, and extreme restlessness. Loss of weight in six months was from 122 to 76 pounds in one, and 116 to 71 pounds in the other. These children had as a constant companion an Airedale. This dog was carried about in the arms, was a pet that was made comfortable by soft places on the lounge or well-cushioned chairs. Some three or four months before the pellagra symptoms developed in these young girls, the dog sickened, refused food, became emaciated, and was finally killed on account of having bitten a relative. A careful examination of the brain by a competent expert was made with negative reports as to rabies. During

the illness of the dog these children nursed him and cared for him daily. I ask those of us who live in rural districts to investigate the "sore mouth disease" in dogs. Is this disease in dogs pellagra?—St. Cloud Cooper, Fort Smith.

STATE GENERAL HOSPITAL.

A meeting fraught with great importance to the State of Arkansas was held Tuesday, November 23, in the Senate Chamber of the Old State Capitol, pursuant to a call issued to the Alumni of the Medical Department, matriculants and interested friends, to discuss plans for the proposed State General Hospital. A large attendance was present and a spirit of inspiration and enthusiasm for the relief of the poor sick, injured and crippled in the state was unanimous. The county and city health officers of the state were attending their annual session and were invited to participate in a joint meeting.

The first number on the program was a lecture illustrated by stereopticon, by Dr. Alexander Johnson of Vineland, N. J., who presented a plea for the care of the feeble-minded of our state. Addresses were also made by Dr. Anderson Watkins, chairman; Dr. C. H. Brough, candidate for governor; Dr. M. C. Hughey, health officer, Clay County; Dr. J. C. Wallis, Arkadelphia, president Arkansas Medical Society; Dr. F. B. Young, superintendent State Hospital for Nervous Diseases; Dr. C. W. Garrison, state health officer, and others.

It was the consensus of opinion that one of the most urgent needs of the state is a general hospital for the free treatment of the sick poor, injured and crippled. A resolution was introduced by Dr. M. C. Hughey and passed unanimously, pledging the support of the physicians and others present to the enterprise, and urging the passage of a bill by the next legislature looking to the erection of a State General Hospital.

A further motion was made and passed without dissenting vote, authorizing the chairman to appoint a committee to perfect plans for a state-wide organization whose purpose shall be to educate the people as to the benefits to be derived from a state hospital, crystallizing public sentiment to such an extent as to insure the passage of the bill by the next General Assembly.

Dr. Brough in his remarks unqualifiedly committed himself to the proposition, pledging his influence to bring about the passage of the bill. Letters were also received from Hon. Thos. C. McRae, Earle W. Hodges and L. C. Smith, all candidates for governor, who heartily endorsed the hospital and declared themselves deeply interested in this humanitarian movement. There is no doubt but that the next legislature will take definite action in the matter and provide for the erection of a hospital commensurate with the needs of the state.

At the close the laboratories of the Medical Department of the University of Arkansas were thrown open for inspection of the health officers and other visitors.

SOUND JUDGMENT vs. SENTIMENT.

The case of the Bollinger baby in Chicago made a great sensation. "What! Let a human being, God created, die when life might be preserved by an operation?" Awful!

That is what, doubtless, thousands of well-meaning people all over the United States said when they read in the papers of the action—or rather the nonaction—of Dr. Haiselden in the premises, by consent of the mother.

With this class of people argument is generally futile. Their insistence is that God does everything for a purpose, and that no man has the right to interfere. It is a pity that the same reverence for the works of God is much less in evidence when it comes to the personal matter of child bearing. Also, it would be much more to the purpose if such people should show, by their treatment of their fellow-men, their belief that they are God's creatures, and as such are entitled to consideration. Thoughtful people, people who are not blinded by superstition and sentiment, know that Nature makes mistakes sometimes, yet they do not impiously lay the blame on God. They know that degenerates result from the violation of Nature's laws, that the offspring of drunkards, of diseased voluptuaries, of the feeble-minded and of other unfit parents are making the world worse, interfering with the welfare, safety, health and happiness of the world at large—and they do not believe that God sent sin and disease and insanity into the world to curse it. Our churches teach that the works of God

are perfect, hence an imperfect specimen of those "made in His image" are surely not His handiwork. Modern science, more than at any time in the world's history, is engaged in trying to improve the race physically, mentally and morally; and this can be achieved only by ridding the world of the unfit in the future generation by stopping the breeding of them. Then, in progressive states we have sterilization penalties for confirmed criminals and the feeble-minded.

It were as reasonable to contend that because all living organisms are God created, that man has no right to destroy the snake, the wild beast, the deadly parasite or the disease germ. Nature has provided most animals with some means of defense. Man, of himself one of the most defenseless of creatures, has been endowed with intelligence which has made him an inventive animal so he has dominion over all the beasts of the field by virtue of his genius in supplying himself with artificial means, which have more than offset Nature's parsimony. It only remains for him to exercise his intelligence for the best interest of the race, and in no way can it be better exercised than by extirpating physical, mental and moral disease, thus safeguarding the future race.

Of course, Dr. Haiselden was not obligated to tell the mother that he could save her child's life, but that it would be a cripple and an imbecile. As has been done in the case of monstrosities over and over again, he could have let the child die and no one would have been the wiser. Having told the parents, it was still not essential that the case should have been given to the press. But the publicity elicited has done some good in bringing to the attention of the public this important matter of controlling the propagation of the unfit. As was to be expected, another case of like character quickly followed, in New York, giving strength to the belief that many others have occurred, the secret resting with the attending physician. In the Little Rock papers, and to a greater extent in the press of the larger cities, symposiums of the opinion, medical and otherwise, have been published; and it must be encouraging to those interested in race betterment to find such a volume of intelligent opinion on the side of Dr. Haiselden.

Editorial Clippings.

THE CAUSE AND CURE OF PELLAGRA

By Dr. Babcock of Columbia, S. C., Secretary of the National Pellagra Association.

Following the announcement by the Public Health Service of the discovery of the cause and cure of pellagra, "The State" interviewed Dr. Babcock, and his comments in part were as follows:

So far as the pellagra problem is concerned, there is absolutely nothing new in the reports sent out from Washington under seal of the governmental authority. The records show that even the Mississippi experiments upon convicts have been previously made. To prove this contention Dr. Babcock quotes Marie's book, published by "The State" in 1910.

Dr. Babcock further says that such observations point clearly to the dietary origin of pellagra and that the reports from the Public Health Service are merely confirmatory of the earlier Italian records, the physicians of Southern Europe having studied pellagra for a century and a half with especial reference to diet.

Dr. Babcock refers to the Italian Pellagra Commission of Inquiry in 1879, having advised meat and wine to be added to the dietary of the peasants to ameliorate their condition. In other words, we gather from this interview that Dr. Babcock believes the government is endeavoring to put an old truth in a new light. At any rate, the intense light of publicity now being turned on the dietary problems of the South is bound to produce good results. Few will deny that there is room for improvement, not only in the homes of the poor, but often in the homes of the well-to-do there is a woeful lack of knowledge as to the proper methods of preparing the food or providing a sufficient variety.—The Journal of the South Carolina Medical Association.

THE BOWEL MOVEMENT.

"It may sound like a Hibernianism, but food does go down the [alimentary] tract more easily because it is put in at the upper end." This quotation, from a recent article by Alvarez in The Journal of the American Medical Association, is the text of an editorial in its issue of November 6. "Nothing in the

daily life of man is of greater import for his comfort and health than the proper evacuation of the alimentary canal. For some reason, the origin of which is not easily discovered, civilized man in the higher walks of life has attempted to establish an artificial habit with respect to this function. One copious movement of the bowel early every day—soon after rising, is regarded by thousands as conforming to a normal, healthful, physiologic routine. Precisely as the failure to perform this act once a day is popularly looked on as a menace to comfort and even good health, so its more frequent occurrence is not uncommonly the occasion for worry lest diarrhea or other forms of impaired alimentary behavior may be at hand," says The Journal.

"What is the physiologic moment for the evacuation of the bowel? Is there any urgent theoretical reason why it should occur at any particular time, or rather, why habit should select for it the time immediately after rising? To the individual employed in business or other vocational pursuits, convenience may dictate the advantage of discharging a disagreeable duty at the most convenient moment, so as to be relieved from personal inconvenience during the remainder of the day. One may as reasonably, however, establish the habit of one meal a day or two meals at fixed hours, and disregard 'the call of the stomach.'

"Even the most cursory observation of the higher animals shows that the emptying of the bowel does not conform to the fixed routine of infrequent defecation to which man has intentionally become resigned. The newer physiology of the alimentary tract clearly teaches that there are natural periods when peristaltic waves are initiated which would naturally induce an emptying of the lower bowel in due time. Every part of the intestine is in a state of activity which can be played on and modified by impulses reaching it from all portions, above and below. Hertz has demonstrated in the case of man that, with the passage of food out of the stomach, the ileocecal valve relaxes, and material travels through the colon at the same time. These features have been emphasized by Alvarez, who notes that the promptness with which a mouthful of food introduced in the stomach causes material to pass through the ileocecal valve or to rush through the colon shows that the human intestine exhibits the characteristic long-distance reflexes.

"Everyone can recall the desire for evacuation which is frequently felt after a liberal meal. In children the movement of the bowel soon after feeding is familiar. Both adults and children have schooled themselves to repress the natural postprandial impulses to defecate; these impulses are not compatible with our social engagements. Custom in this respect is regulated by convenience rather than by physiologic considerations.

"The question may well be raised whether this disregard of natural stimuli is not a potent factor in the widespread manifestation of constipation. Undoubtedly, habitual response to the normal incentives to defecation soon after the introduction of food in the stomach would be a wholesome reform. The facts of physiologic science speak for it. The roentgenologist knows that a contrast meal will go down the bowel faster if followed, a few hours later, by food. The effect of more than one stool per day, however, would bring timely relief from those all too familiar symptoms of malaise which have made up a nation of 'pill-loving' sufferers. Of course, the 'patent medicine' interests would suffer, but the bowel of man, which, according to Keith, contains enough muscular tissue in its colonic wall to form a mass as large as the biceps of a blacksmith's arm, ought to be expected to do its duty unaided."

Personals and News Items.

Now is the time to pay your dues for 1916.

Dr. J. W. DeJarnatt of Guy has moved to Quitman.

Dr. R. E. Bradsher of Marmaduke was elected vice president of the Tri-State Medical Association at their meeting last month in Memphis.

Dr. E. P. Bledsoe of Little Rock has been elected superintendent of the State Hospital for Nervous Diseases to succeed Dr. F. B. Young, resigned.

Among the physicians visiting in Little Rock during the past month include: J. T. Clegg, Siloam Springs; A. E. Cox, Helena; J. H. Buckley, Fort Smith; G. A. Warren, Black Rock; J. A. Moore, El Dorado; S. W. Kirkland, Van Buren; J. C. Wallis and J. M. Daly, Arkadelphia; C. W. McLain, Gurdon; M. D. Kelly, Carthage; Thos. Douglass, Ozark;

T. B. Blakely, Coal Hill; J. H. Weaver, Hope; A. H. Tribble, Hot Springs; W. B. Lawrence, Batesville; P. E. Thomas, Clarendon; E. L. Watson, Newport; Earle H. Hunt, Clarksville; O. Howton, Osceola; J. B. Phillips, Benton; S. A. Southall, Lonoke; E. T. Bramlett, Malvern; C. S. Early, Camden; A. S. Buchanan and J. S. Hesterly, Prescott; Walter Eberle, Fort Smith.

The Southern States Association of Railway Surgeons, at its meeting in Dallas, Tex., November 9, elected the following officers: President, Dr. Southgate Leigh, Norfolk, Va.; vice president, Dr. R. W. Knox, Houston, Tex.; secretary, Dr. Ambrose McCoy, Jackson, Tenn.

The Southern Medical Association held its ninth annual meeting in Dallas, Tex., November 9, 10, 11, under the presidency of Dr. Osear Dowling, Shreveport, La. The following officers were elected: President, Dr. Robert O. Wilson of Charleston, South Carolina; First vice president, Dr. Holman Taylor of Fort Worth, Tex.; second vice president, Dr. Guy Hunner of Baltimore, Md.; Dr. Searle Harris was re-elected secretary and treasurer. The association selected Atlanta as the meeting place in 1916.

H. P. Collins, business manager of the Cincinnati Sanitarium, College Hill, Cincinnati, O., announces the completion of a new hospital building, "Rest College," for nutritional and hygienic treatment. The physicians and management have put years of experience in hospital training into the construction and equipment of this small health resort, and offer to the medical profession a suitable place for the treatment of functional nervous disorders due to malnutrition and faulty metabolism.

ARKANSAS ASSOCIATION OF IRON MOUNTAIN SURGEONS

The fourth annual meeting of the Arkansas Association of Iron Mountain Surgeons was held in Little Rock, November 16 and 17, under the presidency of Dr. R. L. Smith of Russellville.

The meeting was held at the Marion Hotel and consisted of twenty-two scientific papers. One hundred members were present.

The following officers were elected: President, Dr. Allen E. Cox, Helena; vice president, Dr. A. H. Tribble, Hot Springs; secretary, Dr. W. F. Smith, Little Rock.

RESOLUTIONS ADOPTED BY THE AMERICAN MEDICAL EDITORS' ASSOCIATION.

Whereas, The American Medical Editors' Association believe that the principle of the freedom of the press bears unusual force in relation to the medical press, discussing subjects germane to medical progress; and

Whereas, The Southern California Practitioner has been indicted by the United States Postal Department because of the publication of an article dealing with the "sex question," which appeared in the issue of March, 1914;

Be it Resolved, That the American Medical Editors' Association express to Dr. George E. Malsbary, editor of The Southern California Practitioner, its confidence and moral support in the pending action:

Be it Resolved, That the American Medical Editors' Association assure Dr. Malsbary of its willingness and readiness to afford him any assistance and support within its power, according to the Constitution and By-laws.

IRA S. WILE,

C. W. FASSETT,

HENRY R. HARROWER.

October 19, 1915.

Committee.

THE TWELFTH ANNUAL CONFERENCE ON MEDICAL EDUCATION, PUBLIC HEALTH AND LEGISLATION.

The Twelfth Annual Conference on Medical Education, Public Health and Legislation will be held at the Congress Hotel, Chicago, Monday and Tuesday, February 7 and 8, 1916, under the auspices of the Council on Medical Education and the Council on Health and Public Instruction of the American Medical Association. Monday, February 7, will be devoted to medical education, and on Tuesday, February 8, to medical legislation and public health.

All State Licensing Boards, State Boards of Health, State Medical Societies, Associations of Universities and other organizations interested are invited to send representatives to this conference.

THE THIRD ANNUAL CONFERENCE OF HEALTH OFFICERS OF ARKANSAS.

The Third Annual Conference of the Health Officers of Arkansas met in the Senate Chamber, State Capitol, Little Rock, November 23, 24. All who were present stated that this

was one of the most enthusiastic and best meetings of the kind ever extended. Special features on the program were Mayor Taylor's address on Tuesday morning and Governor Hays' on Wednesday morning, and those of Dr. H. W. Crane, of the Eugenics Record Office, Cold Spring Harbor, N. Y.; Dr. H. H. Shoulders, state registrar of vital statistics, Nashville, Tenn., and Dr. Joseph Goldberger, of the United States Public Health Service. A joint public session was held Tuesday evening with the faculty members of alumni of the Medical Department of the University of Arkansas. After an illustrated address by Dr. Alexander Johnson of Vineland, N. J., on "The Care of the Feeble-minded of Our State," plans were discussed for arousing interest in the proposed general hospital, and inaugurating a movement to secure the necessary action at the next session of our legislature.

A resolution was unanimously adopted favoring local organizations in every county to work for the measure. A committee of five was appointed to perfect arrangements and devise ways and means for directing the activities.

THE DOG AS A CARRIER OF DISEASE TO STOCK.

Washington, D. C., December 6.—The dog in the country is a useful and pleasant adjunct to the farm if he is properly controlled and cared for, but, when neglected, may readily become a carrier of disease to stock, in addition to gaining opportunity to kill sheep and destroy gardens and other property. Dog ordinances, as a general rule, have been intended chiefly to curb the dog's power of doing harm by attacking, biting, killing or running sheep or stock. The part that he plays as a carrier of diseases to animals only recently has been recognized, according to the zoologists of the Department of Agriculture, who believe that when this is better understood, rural ordinances and laws which lessen this danger will gain the support of the community.

Of the diseases carried to stock by dogs, the foot and mouth disease is probably of the greatest interest at this time. In this case the dog acts as a mechanical carrier of infection. The dog which runs across an infected farm easily may carry in the dirt on his feet the virus of this most contagious of animal dis-

eases to other farms and thus spread the disease to the neighboring herds. In infected localities it is absolutely essential, therefore, to keep all dogs chained and never to allow them off the farm except on leash.

There are, however, many other maladies in the spread of which the dog takes an active part. In Bulletin 260 of the United States Department of Agriculture, "The Dog as a Carrier of Parasites and Disease," it is pointed out that rabies, hydatid, ringworm, favus, double-pored tapeworm, roundworm and tongueworm are often conveyed to human beings in this way. It occasionally happens also that the dog helps fleas and ticks in transmitting bubonic plague or the deadly spotted fever.

Hydatid disease is caused by the presence in the liver, kidneys, brains, lungs and other organs, of a bladder worm or larval tapeworm. Bladder worms are often as large as an orange, and may be larger. A dog which is allowed to feed on carrion or the raw viscera of slaughtered animals may eat all or part of a bladder worm containing numerous tapeworm heads. These tapeworm heads develop into small segmented tapeworms in the intestines of the dog. The tapeworms in turn develop eggs which are passed out in the excrement of the dog. They are spread broadcast on grass and in drinking water where animals can very well eat them and thus become infected. The hog is particularly liable to this disease because of its rooting habits. The eggs may get into human food, and persons who allow dogs to lick their hands and face also run the risk of getting the eggs of the tapeworm in their systems.

Prevention on the farm consists in so restraining the dog that he cannot get at carrion or raw viscera. Viscera should be boiled before being fed to dogs, and should never be thrown on the fields. If not cooked and fed, viscera and carcasses should be burned, buried with lime, or so disposed of as not to be accessible to dogs. Proper feeding of the dog is essential, and the owner who does not feed a dog properly has no right to keep one.

The parasite which causes gid in sheep somewhat resembles the hydatid worm. A dog allowed to eat the brain of a giddy sheep may swallow this parasite and later distribute the eggs of the resulting tapeworm over the pasture. Sheep, while grazing, swallow the eggs with the grass which they eat. In the

case of sheep dogs it is important to administer vermifuges often enough to keep them free of these worms. In the case of sheep measles, the bladder worm in the meat, typical of this disease, is swallowed by the dog and again the tapeworm eggs are passed by the dog to grass or water, and there are eaten by sheep.

Of the external parasites which dogs may carry to animals, fleas and the various kinds of ticks are both troublesome and dangerous. The remedy is clear. The owner must keep his dog clean, not merely for the comfort and happiness of the dog, but to prevent it from becoming a carrier of disagreeable and dangerous vermin.

These reasonable measures, important to the stock on the farm, have a direct connection with the health of the family. Where ringworm or other skin diseases break out among the children, or the worm parasites develop, it is well to determine whether a dirty or uncared-for dog may not be carrying infection on his skin or hair, or be conveying disease from carrion directly to the food and persons of his friends. Even if no one is infected with disease, the folly of allowing a dog to remain dirty and have the freedom of a home where personal cleanliness and hygiene are respected, is apparent.

THE STATE MEDICAL BOARD OF THE ARKANSAS MEDICAL SOCIETY.

(Reported by Dr. T. J. Stout, Sec'y.)

At the examination of the State Medical Board of the Arkansas Medical Society, November 9-10, at Little Rock, the following questions were asked:

PRACTICE.

DR. J. C. WALLIS.

1. Name four types of malarial infection and give treatment of remittent fever.
2. Give the etiology and treatment of acute tonsillitis.
3. Give the treatment for habitual constipation.
4. Differentiate pleurisy with effusion and acute lobar pneumonia, giving treatment of the latter.
5. Give the treatment of facial erysipelas.
6. How would you make an early diagnosis of tuberculosis?
7. Give the treatment of ophthalmia neonatorum.
8. Give the treatment of convulsions caused by nephritis.
9. Give the medical treatment of ulcer of the stomach.
10. Give the symptoms and treatment of pellagra.

THERAPEUTICS.

DR. F. T. ISBELL.

1. How do the following drugs act in intermittent malarial fever, namely: Quinin, methylene blue, and eucalyptus?
2. What remedies should be used for hemorrhage from mucous surfaces?
3. What are the conditions in cystitis that contraindicate the use of alkaline diuretics?
4. What drugs would you use hypodermically to stimulate the heart? To produce emesis? To control hemorrhage?
5. Give the therapeutic application of drugs in the different stages of pneumonia.
6. Mention the remedy which will arrest the secretion of milk, and state how it should be employed.
7. What are the therapeutic uses of glycerin?
8. Describe the therapeutic uses and dangers of chloral hydrate.
9. Differentiate the physiologic effects of the gastric juice and on the urine of the administration of potassium bicarbonate before and after meals.
10. What are the therapeutic uses of tartar emetic?

MATERIA MEDICA.

DR. F. T. ISBELL.

1. What are antiseptics?
 - (a) Disinfectants?
 - (b) Give an example of each.
2. Define a laxative and tell how it acts.
3. Name the alkaloids of *nucis vomica*.
4. Give the properties of chloroform.
 - (a) Name several preparations of chloroform.
5. What evils may result from chemical incompatibility in prescription?
6. What is the source of digitatis?
 - (a) Give symptoms of digitatis poisoning.
7. What is the source of ergot?
 - (a) Give physical action of ergot.
8. Name six official preparations of mercury.
 - (a) Give briefly the properties, uses and dose of each.
9. Name the principal alkaloids of *papever somniferum*.
10. Classify the following drugs according to their physiological action: Sodium chlorid, sodium hydroxid, potassium citrate, *adeps lanae*, hydro-sus, epinephrin (*adrenalin*), *fel bovis* (ox gall), and *ferri carbonas*.

PATHOLOGY.

DR. T. J. STOUT.

1. Give analysis of the urine of patients affected with auto-intoxication.
2. A persistent low blood pressure is pathognomonic of what class of diseases?
3. In what diseases do we find arteriosclerosis, and to what condition does it predispose?
4. What is the significance of an absence of chlorids in the urine?
5. Explain cause and describe minutely the formation of an epithelioma.
6. Explain the formation of pus.
7. Define leukemia and discuss briefly the clinical phases in its progress.

8. What pathological condition is induced by chronic infections of the nose, throat, teeth, or their accessory sinuses?
9. What is the pathological significance of vertigo?
10. When do secondary and tertiary symptoms of lues appear?
 - (a) What is the significance of nocturnal headaches in lues?

BACTERIOLOGY.

DR. T. J. STOUT.

1. Give method of blood staining.
 - (a) What is the normal blood count, and how is it affected by disease?
2. What is the value of Widal's test for typhoid fever?
 - (a) At what stage of the fever is it most reliable?
3. What general conditions predispose to bacterial infections?
4. Give general method of procedure for staining bacteria.
 - (a) What are counter-stains?
5. What is the most effective method of sterilization?
 - (a) How is culture-media sterilized?
6. Describe in detail the process of finding tubercle bacilli in the urine.
 - (a) Give method of determining the location of the infection.
 - (b) From what other bacilli would you have to differentiate it?
7. Name some of the diseases of which the pneumococci may be the chief etiological factor.
8. What culture-media is essential in the growth of the organisms producing the following diseases: Cerebrospinal meningitis, gonorrhea, and diphtheria?
9. Mention five general or systemic diseases produced by micro-organisms, and in connection with each give name and chief morphological characteristic of organisms concerned.
10. What is the cause of difference in the virulence of diphtheria?

OBSTETRICS.

DR. J. A. BOGART.

1. Into what stages is labor divided, and where do these stages begin and end?
2. Give diagnosis and management of a breech presentation. What are the dangers?
3. Give indications for the use of forceps; internal podalic version and Caesarean section.
4. What are the causes of hyper-emesis gravidarum, and the clinical features and the treatment of the condition?
5. What is placenta praevia? Name its causes, varieties, symptoms, dangers, and treatment.
6. Eclampsis—etiology, premonitory symptoms and treatment?
7. Describe the delivery of the placenta after the method of Crede.
8. Give two indications for the induction of premature labor, and describe one method of performing it.
9. What are the symptoms of inevitable abortion, and how should a case be managed?
10. How would you manage a case of primary postpartum hemorrhage?

ANATOMY.

DR. J. A. BOGART.

1. Name the articulations of the frontal and occipital bones. What bones articulate with the radius?
2. Name divisions of the vertebral column, giving number of bones in each division. What are distinguishing characteristics of cervical vertebrae?
3. What are the relations of the brachial artery? Name its branches.
4. What spinal nerves enter into the formation of the anterior crural nerve, and what muscles does it supply?
5. Describe the origin, course and distribution of the renal arteries.
6. Name the cavities, openings and valves of the heart.
7. Name the coverings of a femoral hernia.
8. Give origin and insertion of the following muscles: Biceps, pectoralis minor, and popliteus. Give blood and nerve supply of each.
9. Name the arteries and nerves which supply the duodenum. What veins drain this region?
10. What structures are severed in an amputation about the middle third of the thigh?

SURGERY.

DR. E. F. ELLIS.

1. Define inflammation, septicemia and pyemia, and what organs are most prone to pyemia?
2. What general term denotes control of hemorrhage? State all the methods which may be used to stop the flow of blood from a wound.
3. What would be the proper treatment for backward dislocations of the femur at knee, with rupture of the popliteal artery?
4. Give causes, symptoms, diagnosis and treatment for acute suppurative osteomyelitis.
5. Define shock and state how you would treat same.
6. If called to a patient with a compound fracture of leg in lower third, which had been produced by kick of a horse in a barnyard, state in detail how you would treat such case.
7. Define ankylosis; give varieties; also describe a surgical method for restoration of joint function in case of bony ankylosis of the knee joint.
8. Give points of differential diagnosis between pyloric (or duodenal ulcer) and cholecystitis.
9. Give varieties of ileus and state some of the causes of each.
10. Give symptoms, diagnosis and treatment of stone in ureter.

HYGIENE.

DR. O. D. WARD.

1. Name four points in personal hygiene to prevent acquiring or imparting tuberculosis.
2. Name some special precautions a child should observe at school in order to avoid contracting disease.
3. What is the hygiene of pregnancy, and what would you give a pregnant woman from a hygienic standpoint?

4. Give prophylaxis of filth diseases.
5. What are the dangers from—
 - (a) The house fly?
 - (b) The mosquito?
 - (c) How would you exterminate them from a community?
6. Name the chief sources of contamination of drinking water.
 - (a) Give several methods of purifying drinking water.
7. Name some diseases that are communicated to man through cow's milk.
8. Name all diseases due to micro-organisms.
 - (a) Methods of transmission.
9. What hygienic precautions should be employed around a patient with scarlet fever and diphtheria?
10. What necessary precautions should be taken to insure healthy sleep?

PHYSIOLOGY.

DR. O. D. WARD.

1. Give composition of blood.
 - (a) Function of blood as a whole.
 - (b) Red cells.
 - (c) Leukocytes.
2. Trace the course of the blood, a complete cycle.
 - (a) In adult.
 - (b) In fetus.
3. Give the causations and describe the occurrence of dyspnea.
4. Where and how is bread and butter digested?
5. Compare the work done by the liver on a proteid diet with that done on a carbohydrate diet.
6. What are the most prominent differences between the composition of the blood plasma and that of urine?
7. Why is the lymphatic system so essential to the human body?
8. Name parts of: the small intestines; large intestines. Give name and location of the glands found in the small intestines.
9. How is the temperature of the body regulated and sustained?
10. What is the function of the medulla oblongata?

CHEMISTRY.

DR. W. F. SMITH.

1. What is element?
 - (a) Name five with symbols.
2. Give two methods of preparing oxygen.
 - (a) Give equations of one method.
3. What is an acid, a salt, a base? Give example of each.
4. Name the elements in the Halogen group.
5. Describe Marsh's test for arsenic.
6. What do you understand by specific gravity?
7. Complete the following:

$$\text{NaCl} + \text{H}_2\text{SO}_4 = ?$$

$$2\text{n} + \text{HCl} = ?$$

$$\text{AgNO}_3 + \text{HCl} = ?$$
8. Describe Fehling's test for glucose and explain chemical reaction.
9. What is the reaction between granulated sugar and Fehling's solution?
10. Give the various steps in making a urinalysis.

GYNECOLOGY.

DR. W. F. SMITH.

1. Name two causes of sterility in the male.
(a) Name three of sterility in the female.
2. Name the objective signs of extra-uterine pregnancy.
3. Name two most common causes of dysmenorrhea.
4. What symptoms of cystitis are first noted?
5. Name the indications for the use of uterine tampons following abortion.
6. Name three varieties of fibroids of the uterus.
7. Name three etiological factors in acute endometritis.
8. Give treatment for inoperable carcinoma of cervix.
9. Would you remove in toto an ovary with a small cyst?
10. What are the objections to ventral fixation of uterus?

District Societies.

THIRD DISTRICT MEDICAL SOCIETY OF ARKANSAS.

(Reported by E. D. McKnight, Sec'y.)

The Third District Medical Society held its eighth annual meeting in Brinkley, November 11-12, 1915, as the guest of the Monroe County Medical Society.

The following program, with few exceptions, was carried out:

FIRST SESSION.

November 11, 10:30 a. m. Registration.

Invocation, by Rev. W. T. Thurman.

Address of welcome on behalf of the city, by Mayor James Grant.

On behalf of the Monroe County Medical Society, Dr. A. H. Gilbrech.

Response to addresses of welcome, by Dr. D. A. Pelton.

President's address, by Dr. O. L. Williamson.

AFTERNOON SESSION.

"Malaria and the Country Practitioner," by Dr. Henry Thibault, Scott.

"Pellagra," by Dr. P. E. Thomas, Jr., Clarendon.

"Tuberculosis," by Dr. T. B. Bradford, Cotton Plant.

"Management of Labor," by Dr. A. H. Gilbrech, Clarendon.

"Maternal Nursing," by Dr. Morgan Smith, Little Rock.

"Report of Two Unique Cases of Syphilis," by Dr. D. C. Bridgeforth, Forrest City.

"Nasal Catarrh," by Dr. H. H. Rightor, Helena.

"Suppurative Otitis Media," by Dr. E. M. Hudson, Little Rock.

A paper, by Dr. William Breathwit, Pine Bluff.

Address, "Some Neglected Duties," by Dr. O. L. Williamson, Marianna.

Address, "Good of the Order," by Dr. D. A. Pelton, Forrest City.

Report of cases, by Dr. L. H. Morphew, Stuttgart.

"Some Points in the Treatment of Ileocolitis of Children, with Special Reference to the Use of Bulgarian Bacillus and Dietetics," by Dr. T. J. Stout, Brinkley.

"The Danger of Pathological Developments," by Dr. R. L. Saxon, Little Rock.

"The Conservation of the Ovaries," by Dr. E. M. Holder, Memphis, Tenn.

A paper, by Dr. J. P. Runyan, Little Rock.

Report of cases, by Dr. M. D. Ogden, Little Rock.

"Some Practical Hints in the Diagnosis of Appendicitis," by Dr. E. J. Johnson, Memphis, Tenn.

"Acute Peritonitis, with Report of Unusual Typhoid Perforation," by Dr. Frank D. Smythe, Memphis, Tenn.

"Why We Remove a Colon," by Dr. Joseph E. Johnson, Memphis, Tenn.

"Urinary Incontinence from the Destruction of the Urethra," by Dr. John M. Maury, Memphis, Tenn.

"Occurrence of Hemorrhage in Chronic Nephritis," by Dr. Bryce W. Fontaine, Memphis, Tenn.

A paper, by Dr. Battle Malone, Memphis, Tenn.

"Report of Some Cases of Hyperchlorhydria and Their Management," by Dr. T. M. Fly, Little Rock.

"The State Hospital for Nervous Diseases," by Dr. Frank Young, Little Rock.

A paper, by Dr. W. W. Hipolite, DeVal's Bluff.

Address, by Dr. J. L. Greene, Hot Springs.

ENTERTAINMENTS.

November 11, 10 p. m., smoker by Elks, at their club room.

November 12, 9:30 p. m., banquet.

The papers were very interesting and were discussed freely.

The entertainment features were inexpensive and delightfully carried out.

Officers for the year 1916 were elected as follows: Dr. D. A. Pelton, president, Forrest City; Dr. P. E. Thomas, Jr., vice president, Clarendon; Dr. E. D. McKnight, secretary, Brinkley; Dr. R. T. Gephart, treasurer, Cotton Plant.

The Committee on Necrology reported on the death of Dr. A. A. McClendon and offered the following resolutions:

Whereas, It has pleased Almighty God to take from our midst our companion and brother, A. A. McClendon; and

Whereas, We keenly feel his loss and companionship; therefore,

Be it Resolved, That the Third District Medical Society, in regular session, pause to pay our love and esteem to our departed brother. That we have lost a faithful brother and member, and that we extend our heartfelt sympathy to his beloved wife and relatives; and therefore, be it further

Resolved, That a copy of these resolutions be sent his wife and a copy be published in The Journal of the Arkansas Medical Society.

S. A. SOUTHALL, M. D.,

P. E. THOMAS, JR., M. D.,

E. D. MCKNIGHT, M. D.

A unanimous vote of thanks was given to the Monroe County Medical Society and the Elks for their royal entertainment.

No further business appearing, the society adjourned.

New and Nonofficial Remedies.

Since publication of New and Nonofficial Remedies, 1915, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies:"

BUTYL-CHLORAL HYDRATE, MERCK.—A nonproprietary brand of butyl-chloral hydrate admitted to New and Nonofficial Remedies. Merck & Co., New York (Journal A. M. A., November 13, 1915, p. 1731).

BISMUTH TRIBROMPHENATE.—Basic bismuth tribromphenate. It is claimed to be a non-irritant and nontoxic antiseptic and an odorless and efficient substitute for iodoform. It is said to be of value in gastro-intestinal ca-

tarrh, proctitis, dysentery, diarrheas, etc. Merck & Co., New York (Journal A. M. A., November 13, 1915, p. 1731).

ETHYL BROMIDE, MERCK.—A nonproprietary brand of ethyl bromid admitted to New and Nonofficial Remedies. Merck & Co., New York.

HOMATROPIN HYDROCHLORID, MERCK.—A nonproprietary brand of homatropin hydrochlorid admitted to New and Nonofficial Remedies. Merck & Co., New York.

SODIUM CACODYLATE, MERCK.—A nonproprietary brand of sodium cacodylate admitted to New and Nonofficial Remedies. Merck & Co., New York.

IODOTHYRINE TABLETS, 3 GRAINS.—Each tablet contains iodothyrene, 3 grains. The Bayer Company, Inc., New York.

THYRESOL PEARLS, 5 GRAINS.—Each pearl contains thyresol, 5 grains. The Bayer Company, Inc., New York.

THEOCIN-SODIUM ACETATE TABLETS, 1½ GRAINS.—Each tablet contains theocin-sodium acetate, 0.1 gm. The Bayer Company, Inc., New York.

AMPULS EMETIN HYDROCHLORID, MULFORD, 1-12 GRAIN.—Each ampule contains emetin hydrochlorid, 0.095 gm. H. K. Mulford Co., Philadelphia.

AMPULS EMETIN HYDROCHLORID, MULFORD, 1-3 GRAIN.—Each ampule contains emetin hydrochlorid, 0.02 gm. H. K. Mulford Co., Philadelphia.

AMPULS EMETIN HYDROCHLORID, MULFORD, 2-3 GRAIN.—Each ampule contains emetin hydrochlorid, 0.04 gm. H. K. Mulford Co., Philadelphia.

AMPULS SODIUM CACODYLATE, MULFORD, 1½ GRAINS.—Each ampule contains sodium cacodylate, 0.1 gm. H. K. Mulford Co., Philadelphia.

AMPULS SODIUM CACODYLATE, MULFORD, 3 GRAINS.—Each ampule contains sodium cacodylate, 0.2 gm. H. K. Mulford Co., Philadelphia.

AMPULS QUININ AND UREA HYDROCHLORID, 1%, MULFORD.—Each ampule contains 5 c.c. of a sterile 1 per cent solution of quinin and urea hydrochlorid. H. K. Mulford Co., Philadelphia.

AMPULS MERCURY SUCCINIMID, MULFORD, 1-6 GRAIN.—Each ampule contains mercury succinimid, 0.01 gm. H. K. Mulford Co., Philadelphia.

CALCIUM PEROXID, P. W. R.—A nonproprietary preparation of calcium peroxid admitted to New and Nonofficial Remedies. Powers-Weightman-Rosengarten Co., Philadelphia.

MAGNESIUM PEROXID, P. W. R.—A nonproprietary preparation of magnesium peroxid admitted to New and Nonofficial Remedies. Powers-Weightman-Rosengarten Co., Philadelphia.

SODIUM PEROXID, P. W. R.—A nonproprietary preparation of sodium peroxid admitted to New and Nonofficial Remedies. Powers-Weightman-Rosengarten Co., Philadelphia.

STRONTIUM PEROXID, P. W. R.—A nonproprietary preparation of strontium peroxid admitted to New and Nonofficial Remedies. Powers-Weightman-Rosengarten Co., Philadelphia.

ZINC PEROXID, P. W. R.—A nonproprietary preparation of zinc peroxid admitted to New and Nonofficial Remedies. Powers-Weightman-Rosengarten Co., Philadelphia.

SODIUM PERBORATE, P. W. R.—A nonproprietary preparation of sodium perborate admitted to New and Nonofficial Remedies. Powers-Weightman-Rosengarten Co., Philadelphia.

FORMIC ACID, MERCK.—A nonproprietary preparation of formic acid admitted to New and Nonofficial Remedies. Merck & Co., New York.

AGAR-AGAR POWDER, MERCK.—A nonproprietary preparation of agar-agar admitted to New and Nonofficial Remedies. Merck & Co., New York.

AGAR-AGAR SHREDS, MERCK.—A nonproprietary preparation of agar-agar admitted to New and Nonofficial Remedies. Merck & Co., New York.

BERBERIN HYDROCHLORID, MERCK.—A nonproprietary preparation of berberin hydrochlorid admitted to New and Nonofficial Remedies. Merck & Co., New York.

FLUORESCEIN, MERCK.—A nonproprietary preparation of fluorescein admitted to New

and Nonofficial Remedies. Merck & Co., New York.

MERCURY CYANID, MERCK.—A nonproprietary preparation of mercury cyanid admitted to New and Nonofficial Remedies. Merck & Co., New York.

MERCURY AND POTASSIUM IODID, MERCK.—A nonproprietary preparation of potassium mercuric iodid admitted to New and Nonofficial Remedies. Merck & Co., New York.

SWAN'S TYPHOID BACTERIN (No. 44) (PROPHYLACTIC).—Marketed in packages of three 1-c.c. vials and also in packages of six 1-c.c. vials. Swan-Myers Co., Indianapolis, Ind. (Journal A. M. A., November 27, 1915, p. 1915).

Propaganda for Reform.

SWAN'S RHEUMATIC BACTERIN (MIXED).—According to the manufacturer, the Swan-Myers Co., Indianapolis, Ind., this preparation contains pneumococci, Friedlaender's bacilli and streptococci (polyvalent). The Council on Pharmacy and Chemistry refused to admit this vaccine to New and Nonofficial Remedies, because there is no satisfactory evidence that either the pneumococcus or Friedlaender bacillus is concerned in the etiology of acute or chronic rheumatism or rheumatoid arthritis, and no conclusive evidence that the streptococcus is an etiologic factor (Journal A. M. A., November 6, 1915, p. 1662).

ELIXIR IODO-BROMID OF CALCIUM COMP.—The Tilden Co., New Lebanon, N. Y., and St. Louis, Mo., sells "Elixir Iodo-Bromid of Calcium without Mercury" and "Elixir Iodo-Bromid of Calcium Comp. with Mercury." The latter is said to contain, in addition to the ingredients of the former, 1-100 gr. mercuric chlorid in each fluid dram. The "formula" of the elixir without mercury is stated to be: "Salts of iodine, bromine, potassium, sodium, calcium, magnesium with stillingia, sarsaparilla, rumex, dulcamara, lappa, taraxacum, menispermum." Advertising circulars give "formulas" which differ somewhat from the preceding. None of the "formulas" gives the quantities of all of the several constituents. The Tilden Co. asks physicians to depend on these preparations in the treatment of syphilis. While it seems incredible

that any physician would jeopardize the health, even the life, of a patient by accepting this advice, the fact that certain medical journals advertise these preparations with the caption "The Conquest of Syphilis," made it incumbent on the Council on Pharmacy and Chemistry to record its condemnation of the employment of these unscientific, semisecret mixtures (Journal A. M. A., November 6, 1915, p. 1662).

THE AUTOLYSIN TREATMENT.—There were strong evidences from the beginning of a commercial spirit in the exploitation of this treatment. Letters sent to physicians further illustrate the method of promoting this improved and possibly dangerous treatment. Dr. Richard Weil, who had the opportunity of personally witnessing the application of this compound in a long series of cases at the General Memorial Hospital, expresses the belief that autolysin is useless, that it adds nothing of value to the methods now generally accepted, and that it often aggravates the sufferings and accelerates the death of the patient (Journal A. M. A., November 6, 1915, pp. 1641, 1647 and 1662).

VARLEX COMPOUND.—This is an alleged cure of the liquor and tobacco habit, of the "prescription fake" variety. Advertisements advise the secret administration of: water 3 ounces, muriate of ammonia 20 grains, varlex compound 1 package, pepsin 10 grains. The A. M. A. Chemical Laboratory reports that varlex compound consisted of approximately 97 per cent milk sugar and 3 per cent moisture (Journal A. M. A., November 6, 1915, p. 1663).

ALKALOL.—Analysis in the A. M. A. Chemical Laboratory indicated alkalol, which is advertised as useful in inflammations of the nose and throat, to be essentially an aromatized, weakly alkaline, saline solution containing a small amount of chlorate, probably potassium chlorate; it yielded about 2 per cent of solids, mainly alkali chlorid, chlorate and bicarbonate; of this 2 per cent, about one-half was bicarbonate (Journal A. M. A., November 6, 1915, p. 1665).

DR. CHARLES' FLESH FOOD.—This is an ointment sold under such claims as "applied to the skin nourishes by absorption," and "it builds firm, healthy flesh." It is also said to be an efficient bust developer. Analysis

in the A. M. A. Chemical Laboratory indicated the following: starch 38.5 per cent, petrolatum 51.0 per cent, zinc oxid 2.0 per cent, impure stearic acid, 1.5 per cent, perfume, coloring matter (Journal A. M. A., November 13, 1915, p. 1747).

INTESTI-FERMIN.—"May we count on your assistance?" ingeniously inquires the Berlin Laboratory, Ltd., in an advertisement appearing in a medical journal, and with cool effrontery continues, "We are telling the layman about Intesti-Fermin. * * * May we count on your assistance in spreading this message to everyone? * * *" May they? (Journal A. M. A., November 13, 1915, p. 1736).

FRECKLE AND BEAUTY LOTIONS.—The worthlessness and, in many instances, the dangerous character of nostrums sold as freckle removers and beautifying preparations are indicated by the following analyses, taken from the reports of various state chemists: Hill's Freckle Lotion was found to be a 1.84 per cent solution of corrosive mercuric chlorid. Kingsbery's Freckle Lotion was found to be a solution of corrosive mercuric chlorid containing 5.3 parts in 1,000. Kuklux Compound, a "prescription fake" freckle and tan remover, was found to contain zinc oxid, bismuth subcarbonate, glycerin and water. Mrs. McCarrison's Famous Diamond Lotion No. 1, said to remove moths, freckles, pimples, etc., was found to be essentially a solution of 28.2 parts of corrosive mercuric chlorid in 1,000 of water. Neroxin, a "prescription fake" said to remove blackheads, was found to contain borax 55 per cent and "soda" 25 per cent. Othine, sold as a freckle remover, is reported to contain bismuth subnitrate and ammoniated mercury with a fatty base. Perry's Moth and Freckle Lotion Compound was found to be a 16 in 1,000 solution of corrosive mercuric chlorid containing in addition a small amount of lead salt. Pyroxin, sold on the "prescription fake" plan as an eyebrow and eyelash grower, was found to be perfumed vaseline. Rose-Kayloin, advertised in fake health departments of some newspapers, was found to contain 80 per cent sulphate and 15 per cent potassium carbonate. Mme. Rupert's Face Bleach is reported to be a 4 in 1,000 alcoholic solution of corrosive mercuric chlorid, containing a small amount of benzoin. Stillman's Freckle Cream was

found to be an ammoniated mercury paste. Tan-A-Zin, a complexion beautifier, was found to have for its essential ingredient ammoniated mercury. Sarah Thompson's "Wrinkle Lotion" was found to contain alum 7 per cent, glycerin 29 per cent, and water 64 per cent. Zintone, said to produce a faultless complexion quickly, is reported to contain borax 23 per cent, stearic acid and soap 77 per cent. Though the external use of mercury salts is fraught with danger, the nostrums above shown to contain such poisonous ingredients are sold with the claim that they are practically harmless (Journal A. M. A., November 20, 1915, p. 1835, and November 27, 1915, p. 1933).

ANESTHESIN. — Anesthesin is paraminoethyl-benzoate. New and Nonofficial Remedies states that it is one of the products which owe their existence to the discovery that the local anesthetic action of cocain is due to the radical of benzoic acid in combination with a nitrogen-containing basic group. Treasury Decision 2184 contemplates the registration of anesthesia under the Harrison narcotic law (Journal A. M. A., November 20, 1915, p. 1837).

LAXATIVE BROMO QUININ.—From the analysis of the A. M. A. Chemical Laboratory it appears that each tablet of laxative bromo quinin contains, as essential ingredients, phenacetin about 2 grs., caffein 1-5 gr., quinin or cinchona alkaloids 2-5 gr., and aloin or aloes. While the name gives the impression that bromid and quinin are the important ingredients, the bromid content corresponds only to 1-500 part of a pharmacopœial dose of potassium bromid. In order to get a pharmacopœial dose of quinin, it would be necessary to take ten laxative bromo quinin tablets. If this were done, the person would get twenty grains phenacetin, a dangerously poisonous dose. As phenacetin is the essential ingredient of laxative bromo quinin, it is evident that this widely exploited nostrum is misbranded (Journal A. M. A., November 27, 1915, p. 1932).

IODEOL AND IODAGOL.—Both appear to be iodine preparations. They are advertised as "Electro-Chemical Colloidal Iodine." Iodeol is recommended as "Iodine with all its potentialities, * * * stripped of all its drawbacks, nonirritating, noncaustic, nontoxic, noncumulative, injectable without pain." No

adequate evidence is offered in support of the therapeutic claims made for iodeol and iodagol, although the assertion as to the action of iodeol in tuberculosis and pneumonia, in particular, are susceptible of test by laboratory and animal investigation (Journal A. M. A., November 27, 1915, p. 1935).

Married.

JUNGKIND-CASTLEBERRY.—In Beebe, Wednesday, November 18, Dr. B. F. Jungkind and Miss Eula Castleberry.

County Societies.

FRANKLIN COUNTY.

(Reported by Dr. Thos. Douglass, Sec'y.)

The regular meeting of the Franklin County Medical Society was held November 2. Dr. Warren presided. Also present were: Drs. Rambo, Jacobs, Williams, Post, Downey, Blackburn, and the following distinguished visitors: Dr. O. M. Bourland of Van Buren and Dr. Earle Hunt of Clarksville. These gentlemen contributed largely to the pleasure and profit of the meeting.

Dr. Warren read a good paper on "Ocular Gonorrhea." This was followed by a very full discussion. The importance of using the Crede method as a routine procedure was strongly emphasized. Several admitted that they had not been following the practice, but would do so hereafter. It had been stated by several that the majority of cases of blindness is due to ophthalmia neonatorum. All authorities consulted, however, gave the percentage as not more than 33 per cent. A modification of the Crede method was given, as dropping one drop of the 2 per cent silver nitrate solution or two or three drops of the 1 per cent solution into each eye without neutralizing. It was stated that tablets were obtainable for making a fresh solution each time. This avoids the irritation of old solutions. The discussion came finally to include the use of rubber gloves and obstetrical gowns. Only one member uses gloves in all cases. Others use them sometimes. Dr. Post said that one doctor, after examining a patient, reported that the os would not dilate. This was a face presentation and the examining finger had entered the child's mouth.

Dr. Downey presented an interesting case of metacarpal fracture with nonunion.

The next meeting will be the annual meeting and banquet and election of officers. We are expecting a big time.

BRADLEY COUNTY.

(Reported by Dr. S. H. Barnett, Sec'y.)

The Bradley County Medical Society met in Warren, November 9, President Wommack presiding. Members present: Drs. Barnett, R. Martin, C. N. Martin, Green, Fike, Crowe and Hartsell.

The meeting was enthusiastic and all enjoyed the good clinic furnished by Dr. Hartsell on extra-uterine fibroid tumor. A number of cases reported by members were discussed at length.

Dr. J. Ruth was unanimously elected to membership, after which adjournment to meet in December and monthly thereafter. Those present were urged to get all the new members possible by next meeting time.

ARKANSAS COUNTY.

(Reported by Dr. M. C. John, Sec'y-Treas.)

Stuttgart, November 18.—The Arkansas County Medical Society met in this city on October 12. After an informal discussion of diphtheria, the following officers were elected: Dr. B. L. Hill, president; Dr. W. H. Moorhead, vice president; Dr. M. C. John, secretary and treasurer; Drs. C. T. Rives, E. H. Winkler and A. Fowler, Board of Censors; Dr. E. B. Swindler, delegate to State Society, and Dr. C. E. Clark, alternate.

The next meeting will be held at Almyra the second Tuesday in January.

LAWRENCE COUNTY.

(Reported by C. C. Townsend, Sec'y.)

The Lawrence County Medical Society held its annual meeting at Hoxie, December 1, 1915, with our president, Dr. J. H. Stidham. Members present were: Drs. J. C. Hughes, J. C. Land, H. R. McCarroll, J. W. Morris, E. T. Ponder, W. J. Robinson, J. H. Stidham, J. C. Swindle, F. D. Smith and C. C. Townsend. Visitors: Dr. Stroud of Jonesboro, Dr. Earl Thomas of Hoxie, and Dr. F. L. Nelson of Corning, our worthy counselor.

Dr. H. R. McCarroll presented an interesting case of chronic malaria complicated with pleurisy and effusion. This case was discussed at length by the society.

The following officers were elected for the coming year: President, Dr. F. D. Smith of Alicia; vice president, Dr. J. C. Swindle of Walnut Ridge; secretary-treasurer, C. C. Townsend of Walnut Ridge; censor, Dr. W. W. Hatcher of Imboden; delegate to state meeting, Dr. J. C. Hughes of Walnut Ridge; alternate, Dr. E. T. Ponder of Walnut Ridge.

On motion, the officers named were all elected by acclamation, the secretary casting the vote of the society.

The society then took a recess of an hour in order that the members and their families might partake of a banquet at the Boaz Hotel, given by the doctors of Walnut Ridge and Hoxie in honor of the other members of the county.

After supper session: Dr. W. J. Robinson read an interesting paper on cholecystitis, which was discussed by the society, followed by discussion of the business side of the practice of medicine. Dr. F. L. Nelson, the counselor of this district, made a very instructive talk on medical society work and the benefits to be derived therefrom. His visit and talk was highly appreciated by all.

Book Reviews.

THE PRACTITIONER'S VISITING LIST FOR 1916.—Four styles: weekly, monthly, perpetual, sixty-patient. Pocket size; substantially bound in leather with flap, pocket, etc; \$1.25 net. Lea & Febiger, publishers, Philadelphia and New York.

The Practitioner's Visiting List embodies the results of long and studious effort devoted to its development and perfection, and is the final result of over thirty years' experience in meeting and anticipating the needs of the practicing physician. It is a practical convenience which, once possessed, becomes indispensable to the busy practitioner.

It affords a simple and complete system for keeping the records of daily practice. In addition to the ruled pages for daily calls and their notes, general memoranda, addresses, cash account, etc., it contains specially arranged spaces for data desired for permanent record such as births, deaths, etc. The value of such records is best appreciated by the physician who has been suddenly confronted by

the necessity of producing such data after the lapse of years and in the absence of an orderly system for its preservation.

It is issued in four styles to meet the requirements of every practitioner: "Weekly," dated, for 30 patients; "Monthly," undated, for 120 patients per month; "Perpetual," undated, for 30 patients weekly per year, and "60 Patients," undated, for 60 patients weekly per year.

THE PHYSICIAN'S VISITING LIST FOR 1916.—With special memoranda. Interleaved, pocket size; substantially bound in leather, with flap, pocket, etc. Published by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia, Pa. Price, \$1.25.

This little book has become quite a favorite on account of its completeness and simplicity of arrangement. The name of the patient is written once a month. Can be commenced at any time.

A MANUAL OF THE PRACTICE OF MEDICINE.—By A. A. Stevens, M. D., Professor of Therapeutics and Clinical Medicine in the Woman's Medical College of Pennsylvania, Lecturer on Medicine in the University of Pennsylvania. Tenth edition, revised. 12 mo. of 629 pages, illustrated. W. B. Saunders Company, Philadelphia, 1915. Flexible leather, \$2.50 net.

The popularity of this book is shown by the many editions necessary to meet the demand.

Among the important modifications in this number is found in the sections pertaining to leukemia, chronic nephritis, cardiac arrhythmia, pulmonary tuberculosis, typhus fever, malaria, pyogenic infections, and locomotor ataxia. Also articles relating to Vincent's angina, tests of the functional capacity of the kidneys, and chronic enlargements of the spleen. The book closes with a section on diseases of the brain, spinal cord and nerves, and one on the inflammatory diseases of the skin.

THE CARE OF THE BABY.—By J. P. Crozer Griffith, M. D., Professor of Diseases of Children in the University of Pennsylvania. Sixth edition, thoroughly revised. 12 mo. of 463 pages, illustrated. W. B. Saunders Company, Philadelphia, 1915. Cloth, \$1.50 net.

This edition has been completely revised and many new illustrations have been added.

The first chapter describes the hygiene of pregnancy, the second chapter discusses the characteristics of a healthy baby. The growth of the baby's mind and body are considered in the third chapter. The chapters which follow pertain to the methods of bathing, dressing and feeding children of different ages, to the hours of sleeping, to physical and mental exercise and training, and to proper qualities of the children's various nurses and the sick

baby. Dr. Griffith's statements are plain and easily understood and his book should prove of valuable aid to those practitioners whose opportunities for observing children have been limited.

THE CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume IV, No. 5 (October, 1915). Octavo of 228 pages, 56 illustrations. W. B. Saunders Company, Philadelphia, 1915. Published bimonthly. Price per year: Paper, \$8.00; cloth, \$12.00.

Among the interesting articles in this number, we find descriptions of fracture of humerus, ununited fracture of internal condyle of humerus, ancient fracture-luxation of the elbow joint (olecranon process), fracture of radius and ulna, ancient fracture of radius and ulna-division of ulnar nerve, neurorrhaphy, etc.

Dr. Murphy says: "With a bone graft you need absolute immobilization if you are going to get a good result. In fractures of the shaft that are treated without a transplant, it is essential to have some slight motion. In fractures near a joint it is unnecessary to have motion, because near a joint you have osteogenesis taking place without any motion being provided for, and you rarely have a failure of union except at the neck of the internal and of the external condyle of the humerus. In fractures involving the shaft you can have immobilization so complete that no osteogenesis will take place, since with no motion there is not enough stimulation. This matter of mobilization is important when you have both ends of the bone living and actively osteogenic. It is an entirely different matter in the case of transplant. With a transplant you want the blood vessels of the living receptive to pass into the Haversian canals of the transplant without the formation of connective tissue between the graft and the bone."

PROGRESSIVE MEDICINE.—A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by H. A. Hare, M. D., assisted by L. F. Appleman, M. D. Volume III, September, 1915. Published by Lea & Febiger, 708 Sansom Street, Philadelphia, Pa. Subscription price, \$6.00 per annum.

The contents of this volume are as follows:

"Diseases of the Thorax and Its Viscera, Including the Heart, Lungs and Blood Vessels," by William Ewart, M. D., F. R. C. P.

"Dermatology and Syphilis," by William S. Gottheil, M. D.

"Obstetrics," by Edward P. Davis, M. D.

"Diseases of the Nervous System," by William G. Spiller, M. D.

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In this new book Dr. Albee gives you his own technic and methods and their practical application in an ever-widening field of use. It is essentially a monograph on Dr. Albee's own work. You get the fundamental principles underlying the use of bone graft in surgery; Dr. Albee's electric motor operating outfit and technic of using it; bone graft in treating Pott's disease and other lesions of the spine; the inlay bone graft in the operative treatment of fractures; operative methods for remodeling the hip-joint; the inlay bone graft for fixation of tuberculous knee-joints, infantile paralysis, osteo-arthritis (Charcot's disease), the wedge graft for habitual dislocation of the patella; bone graft in treatment of diseases and deformities of foot and leg; miscellaneous uses of the bone graft. There are 332 original illustrations, three in colors.

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THE JOURNAL

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VOL. XII

LITTLE ROCK, JANUARY, 1915

No. 8

Original Articles.

OBSTETRIC TECHNIC.*

By E. C. Meyers, M. D.,
Fort Smith.

The subject of obstetric technic covers too large a field to be dealt with in a paper suitable for this occasion. I shall therefore find it necessary to confine myself to the more common experiences of the obstetric practitioner, and try to bring out a few points of special importance. At first thought one might conclude that little advance has been made in obstetric practice in the last twenty-five years. The anatomy of the parts is the same; pelvic deformities and the dystocias of labor were about the same then as now, and were pretty well understood. The progress and mechanism of labor in its various stages has not changed. The Tarnier forceps and its modifications mark an epoch in forceps invention and application, and there has been no very great improvement in forceps construction since they were presented.

The question naturally arises, then, what great advance has been made in obstetric practice? My answer to this question is, that the most important advance has been in obstetric technic; not confining its meaning to a narrow mechanical sense, but in a broad sense as it relates not alone to manipulation, but also to the preparation and care of the patient before, during and after labor.

It has been about thirty-five years since Lister brought to the attention of the world the value of antiseptics; but a knowledge of the value of asepsis is of much more recent date.

Twenty-five years ago it was common practice to perform surgical operations under an

antiseptic steam spray which was thrown upon the field of operation, but not so much attention was given to asepsis in the careful sterilization of instruments, dressings, sutures, etc., and the preparation of the patient, the operator and attendants, and almost nothing was heard of asepsis in the management of obstetric cases.

If you were to ask me, then, what I consider the most important progress in obstetric practice in recent years, my answer would be, in the application of a technic based upon the nearest possible approach to absolute cleanliness; and the success obtained by these methods in the abolition of puerperal infections.

The common practice of obstetrics thirty years ago might be described somewhat as follows: Most of the nursing was done by relatives, or elderly ladies who made this a business; and while some of them were much more cleanly than others, and in some respects were quite capable nurses, still none of them had a proper conception of the necessity for scrupulous cleanliness, nor of its importance in the prevention of puerperal fever, from the fact that the physicians for whom they nursed did not fully understand the importance of sterilization and asepsis in the prevention of infections.

When the physician arrived he would generally remove his coat and roll up his sleeves, and ask the nurse to bring him some lard, which was generally brought in a saucer or on the point of a spoon, and with this he anointed his fingers and made the first examination, rarely washing his hands before the examination, and not always after.

When labor had advanced to a stage that required it, he would call for some waste cloths which were frequently kept in a rag-bag containing discarded clothing. Strips were torn from these and thrown at the foot of the bed within easy reach.

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

An old comfort was folded and placed under the patient to protect the bed, without much care as to its cleanliness, and the mattress and sheets were often old and none too clean. When the baby was born, the cord was tied with a strong piece of wrapping thread, and the stump was dressed with a soft cloth through a hole, was cut and scorched by a flame, and a little lard applied. It is true there were exceptions to the method I have described, but this was the most common practice.

I shall not presume that it is necessary to take up your time by placing in contrast modern methods of sterilization and cleanliness. I assume that you are all familiar with them. I may say, however, that some have possibly gone to an extreme in this direction in their efforts to sterilize the vagina by the use of strong antiseptics, and scrubbing.

I think the practice is objectionable because it is impossible to sterilize the vagina, and the use of strong antiseptics interferes with the natural protective secretions, and impairs the resistance of the epithelial tissues to infection.

Labor is a natural process; it is not a surgical operation. All that is necessary is cleanliness. Efforts to sterilize with strong antiseptics are objectionable except in selected cases. I am well aware that this is a debatable question, and my statement should not be construed as justifying any carelessness or neglect of effort to approach absolute cleanliness. My personal observation is that those who are too meddlesome in obstetric practice get into trouble most frequently.

In regard to rubber gloves, I think it would be well if all would use them, and I think the most do. At the same time, I am not convinced that the rubber glove is not frequently soiled so as to convey infection, or that the hand cannot be cleansed and sterilized so as to be perfectly safe. In the last fifteen years, in many cases without the use of gloves, I have had no puerperal fever. It is to a large extent a matter of technic.

As stated in the outset, my purpose in this paper is to refer only to the common experiences of the practitioner. I will therefore consider briefly the use of obstetric forceps. The subject of technic has to do more particularly with their application, rather than with the indications for their use.

However, in regard to the indications for the use of forceps, opinions differ widely, and

sometimes almost acrimoniously. This may be due to the fact that it would be better if some would never undertake to use them, and on the other hand there are those who resort to them too frequently.

Perhaps the principal contraindication for the use of forceps is an undilated os. Personally, I do not hesitate to use forceps when the os is well dilated, if the patient, after a reasonable length of time, makes practically no progress, and shows marked signs of exhaustion and discouragement, regardless of whether this is due to the failure of the head to engage in the pelvic inlet, or failure to pass through the pelvic diameters, or is lodged against the pubic arch, or is held back by the muscles and perineum of the pelvic floor, or to some other condition that results in uterine inertia. I see no reason why a woman should not have assistance under these conditions.

In the application of forceps, it has been my experience in consultations that some physicians undertake to act too hurriedly, and even after the forceps are applied they proceed to deliver without any let-up, and regardless of pains, a good deal as a dentist would extract a tooth. While the fact is, there are few conditions in which any haste is necessary at all.

The insertion of the blades is purely a mechanical operation, keeping in mind the pelvic axes, the curvature of the blade, and the lines of least resistance.

To insert the blade the handle should point to the right, or the left, and be held close down almost parallel to the woman's abdomen. With the fingers of one hand inserted well up against the child's head, and the blade held in the other hand, its edge at the point should be pressed into the palm of the inserted hand and slid up in contact with the hand until it presses against the head, at the same time elevating the handle just enough to avoid contact with the meatus or urethra. In the next step, great care must be taken to avoid laceration of the cervix, which is thinned down through dilatation and lies closely in contact with the presenting parts. In my judgment, it is at this time that most of the lacerations of the cervix are produced, if they occur at all, as the result of forceps application. To avoid this, the greatest care and delicacy must be used; the blade must be kept closely against the head and no force used if the slightest resistance is detected,

and above all, no effort to insert the blade should be made except when the uterus is relaxed between pains. This rule should be observed in all stages of forceps application, never to make any effort to place forceps in position while a pain is on. By observing this rule the application of forceps is practically a painless operation, except in primipara, and does not even require an anesthetic.

As intimated, it is my custom to apply the forceps in the line of least resistance, that is, generally, in relation to the pelvis, and then slide the blades around gently to a cephalic relation in accordance with my diagnosis of the position, if possible; however, when the forceps lock readily, I feel pretty safe in using such force as is necessary in the way of traction to proceed with delivery, regardless of my diagnosis.

There has been a good deal of unnecessary excitement, haste and bungling in the application and use of forceps. We have all seen it, and no doubt the most of us have at some time or other contributed our share of it. The result is that a great many injuries and lacerations have been attributed to the use of forceps when the blame should rest elsewhere.

Forceps add practically nothing to any diameter of the head that will interfere with delivery, and if traction is made in the right direction, without undue force, will produce no lacerations that would not occur without them. It is necessary, however, that delivery be conducted slowly, and traction be made only with the pains, and the grip on the handles released, and the head allowed to retract as pains cease, just as in natural labor. For this reason I prefer to have the patient only under partial anesthesia up to the last few pains, when if there is danger of perineal rupture, the patient may be under surgical anesthesia.

In regard to axis-traction forceps for high operations, I look for the popularity of this instrument to gradually wane. It produces too great injury, and mortality to the child; besides, I think that every head that should be made to engage in the pelvic inlet can be made to do so by the use of long forceps of lighter construction, and by making traction with one hand used as a fulcrum. In high operations the blades should be inserted in the transverse diameter, and the head drawn

down until one of its principal cephalic diameters has engaged below the plane of the pelvic inlet. The forceps should then be removed and the hand should be inserted if necessary to make an accurate diagnosis of the position, and the forceps should then be reapplied, if possible to the parietal sides of the head. Delivery can then generally be accomplished with a moderate amount of traction.

I have intimated that we have about reached a period in obstetric practice when the high application of forceps will become less frequent. Not that there is anything wrong with the principle of the Tarnier forceps; there is not; it is mechanically correct, and the principle is applicable to all forceps deliveries.

I believe the time has about come when obstetricians will cease to attempt to deliver a living child through a conjugate diameter of three inches and less; and I will say further that the time is not far in the future when those cruel and abominable instruments known as the cranioelast, the cephalotrite and perforator will be relegated to oblivion in so far as they have any place in obstetric practice in dealing with a living child.

With a mortality of less than 10 per cent to the mother, and with some operations only 1 or 2 per cent, and almost nil to the child, it would be much better if all these cases could be delivered by Caesarian abdominal section.

With the splendid technique in abdominal surgery already obtained, Caesarian section is already becoming one of the great life-saving measures of this century. Although we may not have advanced that far yet, I predict that the time is not far distant, if not already here, when it must be looked upon as the safest termination of these cases of placenta previa, puerperal convulsions, and perhaps of uncontrollable vomiting of pregnancy, and in all those cases where the head cannot be made to engage without greatly endangering the life of the child.

To keep up with this advance, it means that more attention must be given to the construction and equipment of lying-in hospitals in our smaller communities. Women do not like to go to a general hospital to be confined; but with a proper management for privacy and comfort, I believe that many of the women in the best of our homes will gladly avail them-

selves of the opportunity of being confined in an institution especially equipped to provide them with safety, economy and specially trained nurses.

I realize how imperfectly this paper covers the field of obstetric technic, and you may not subscribe to every statement made herein; but if I have been able to present the subject in such a way as to stimulate discussion, and encourage additional suggestions, or by investigation and study improve my own technic, or by dropping a line here, or a word there, render any service to my brother practitioner, my task has been accomplished.

There is one other subject which I shall refer to briefly in order that it may come before you for discussion. It is a matter that has attracted a great deal of attention in the public press—the so-called “twilight sleep.”

This fact has led a large number of physicians to look with disfavor upon the method of treatment, and to discredit the assertions of its advocates; and then there are a large number who prefer to assume the attitude of “watchful waiting.” Personally, I have been influenced by the fears expressed by competent observers that it will increase the infant mortality. It would seem that at present the method, if used at all, should be limited to hospital cases, where properly trained attendants can be constantly at the bedside recording observations, and where environment is such that every detail can be rigidly carried out.

THE USE OF SCOPOLAMINE-MORPHIN IN LABOR.

The action of scopolamine is chiefly upon the central nervous system. It quiets the cerebrum and diminishes the perception of pain, without apparently influencing the contractility of the uterus. (A. J. Rongy and S. S. Arhuck, *New York Medical Journal*, September 26, 1914.)

Clinically, the patients may be divided into three groups: 1, patients in whom amnesia and analgesia is obtained; 2, patients in whom analgesia without amnesia is obtained; 3, patients who entirely fail to respond to the treatment.

Treatment is begun only when the patient shows definite signs of active labor. The patient is then put to bed in a dimly lighted room and an initial dose of 0.00045 gram, or approximately 1-160 grain of scopolamine hydrobromid is injected intramuscularly. This is preceded by a hypodermic injection of one-

half grain of morphin-narcotine meconate. The effects are now carefully observed with special reference to pulse, respiration, pupillary reaction, fetal heart, and intensity and frequency of uterine contractions. A second injection of scopolamine is given about one hour after the first. About half an hour after this injection, memory tests are brought into play. The patient is shown some object, such as a doll or a watch, and a short while later she is asked whether she saw the particular object in question. She may be asked whether she had a hypodermic injection. Any test of memory will do. The repetition of injections is now primarily gauged by the degree of amnesia present. The interval between injections, although at times it may be necessary to give only two or three, or as many as twelve or fourteen.

After the completion of the first stage, with the presenting part on the perineum, one c.c. of pituitrin is often given to hasten delivery. As soon as the child is born, the cord is quickly ligated and severed and the infant is removed to another room. The mother, after being made comfortable, generally falls into a deep sleep, to awaken from two to four hours later, usually in complete ignorance of the fact that she has given birth to a child.

ANENT THE GENERAL PRACTICIAN.*

By Don Smith, M. D.,
Hope.

It is a happy faculty to be able to present a paper on any subject to a body of men and make them see it just as you want them to. It is a happier faculty to be able to hold your audience whether you say anything or not.

Now, my language may be juggled in this short squib until it will be hard for you to get the point I am trying to make; but I hope to hold your attention while I read a few short sentences “Anent the General Practician.”

I have seen the field of the general practitioner grow narrower and narrower every one of the twelve years I have been engaged in the practice of medicine.

I have often wondered if there was any remedy for this growing demand for the specialists in all the lines. For instance, if we

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

get a case of appendicitis—off goes our patient to the general surgeon. Now, no matter how much the patient is behind with us in a financial way, very, very often we have to sacrifice the whole thing, and let the patient make financial arrangements for the surgical operation.

In our gynecological work it is the same. We too often have to get out of the way for the gynecologist who is not expected to operate for nothing.

Even the laboratory man comes in for his slice off the general practitioner's business. He, of course, is better equipped for laboratory diagnosis than the general practitioner, and thus gets his share.

We let the eye, ear, nose and throat man have a lot of business that is justly our own.

Now, I imagine I see the general surgeon, the gynecologist, the laboratory man, the eye, ear, nose and throat man and all the other specialists wink as they hear this, but you've a wink coming, and the laugh is on us—the general practitioner—at this time.

Another thing which makes me blush with shame to record it, is that osteopathy and chiropractic, the colossal frauds of the age, have to be met and reckoned with by the general practitioner.

In the smaller towns where it is just becoming a fad, the vampires of this cult are reaping a splendid harvest. People are not wise to them yet, and in many instances are regular patrons, except when they get real sick. Many good people of the well-to-do class are at the osteopath's for a "rub-down" once to three times a week. These people, of course, are not sick, and as a rule do not take the necessary amount of exercise and must get someone to exercise for them.

The osteopath and the chiropractor subsist on the well-to-do, hence never reach the poor where help is so badly needed. Whoever heard of one being seen in the huts of the poor? Whoever saw one losing sleep night after night—going the rounds, seeing rich and poor alike? Whoever heard of one offering any remedy for the prevention of disease? Whoever heard of one offering any remedy for the "cure" of disease? Whoever knew of one curing any disease with which there is any pathology connected?

O, I have *heard* of organic heart lesions, cancers, ulcers of the stomach and intestines, etc., being cured when all the "medical doctors" had given the cases up as hopeless.

When I hear this remark I am always reminded of an old man of my acquaintance who made the remark that "None of you doctors have ever done me any good." Three of us were present when the remark was made and it developed that none of us had ever been asked to prescribe for him. People just say these things often, and in many instances have never consulted a careful, painstaking medical man.

Again (and here is the point that should make the medical man blush with shame), I have known osteopaths and Christian Scientists (who, by the way, are neither Christians nor scientists) to cure cases where the medical attendant had diagnosed the case as cancer or ulcer or something equally as improbable.

Here is the only reason that Osteopathy, Chiropractic, Christian Science and all the rest even exist, much less thrive, namely, bad diagnosis, or, what is worse, incorrect diagnosis.

It is a great boost for the grafter when the family physician steps down and out and quits, and he (the grafter) steps in. He has all to gain and nothing to lose, and if the doctor has made a mistake and the patient does recover, it is heralded all over the neighborhood.

In my town we had a severe epidemic of smallpox two years ago, and we were using every available means to get it under control. I happened to meet a minister of one of the local churches during this epidemic, and casually asked him if he had had his children vaccinated. He said, "Yes; I had the osteopath vaccinate them." My curiosity was at once aroused, and I asked him what method the osteopath used. Now, you can imagine my chagrin when I learned that these people were advocating the use of the fly blister as a preventive for smallpox!

I was city health officer at the time, and as the disease was proving extremely virulent and fatal, I had felt some uneasiness for my family and myself on account of the numerous exposures to which I was daily subjected. When I heard what the osteopaths were advocating I thought, "After all, is it worth while for men to court death for others?" "Is it worth while to spend hours and days and years investigating as some of our men are doing, that human lives may be saved and made more comfortable?"

And then I thought of Harvey, Jenner, Pasteur, Lister, Ronald, Ross, Gorgas, and all the rest, at any one of whose feet Osteopaths and Chiropractors might sit for ages and learn medicine.

I thought of the lives they have saved. Of the great enterprises they have made possible, and I said, "It is worth while." And, gentlemen, it is worth while. Why, it is the richest heritage to live in this age—richer than all save, possibly, the one ahead, even though in this age we have to be annoyed with the Osteopaths, etc.

But you say, what has this to do with the general practitioner? Quite a great deal. It is an encroachment on his rights and a narrowing of his field.

But you say, they don't cure anyone, do they? No, not if the patient is really sick enough to need anything; but it often leaves the patient beyond the doctor's help. He is called in at the last, and thus is unable to repair the damage done.

"But," you say, "what should we do—turn it over to the Christian Scientists, Osteopaths, etc.?" While I have often felt that way, and have tried to picture what the result would be. But the picture is too horrible to even exist in the imagination, and I know we must fight on. The remedy, of course, lies in the education both of the masses and the doctors. Doctors must study diagnosis, for if they are a good diagnostician, they are absolute masters of the situation.

To protect himself, the general practitioner must do some surgery. Now, here is where I expect every surgeon in the audience to "jump on" me, but if they do, I will just quote Dr. John B. Murphy, who at a meeting of the American Medical Association at Atlantic City made use of the following language: "Unless the hospitals of the country are more careful as to who operates in them, there is danger of the legislatures interfering."

Now, Mr. Surgeon, the laugh is on you!

The reason I say the general practitioner should do some surgery is because he has tried drugs until he is pretty well acquainted with their value; hence, the after-treatment would be perhaps more rationally administered. I do not think any man ought to attempt surgery until he has practiced medicine several years—then he is more apt to rely on his brain than his knife to make his diagnosis.

Another reason why the general practitioner should do some surgery is because he nearly always sees patrons first, and if he is equipped, could save life in many instances; a long, tiresome trip to a hospital often, in my judgment, puts the patient in very bad condition for an operation. But I do not think anyone should attempt surgery who has not had a fair opportunity to study pathology and technic. This knowledge of pathology and technic can never be acquired by visiting the various clinics of the country. In my judgment, it can only be acquired by actually coming in direct contact with the patient, and assisting in the work. "But," you say, "how are we going to do this?"

Here's my plan:

You men who are doing surgery should keep open house for the physicians all over the state. In addition to your regular trained assistant, you should have one or two physicians all the time who could also assist as they gradually become accustomed to the operating room and its requirements. These physicians should stay four to six weeks and then make way for others. This would materially increase the surgeon's practice, as these physicians would naturally refer many cases to them, and it would bring the physician up to a much higher plane. It would give him the self-confidence which comes only with actual experience. This course should be pursued once or twice a year.

All the specialists could and should extend the same courtesies to the profession, and do untold good for the human race.

The general practitioner, if he holds his own, must keep abreast of the rapid strides being made along all the lines of medicine. He must be so thorough as to be indispensable to his community as were the men a generation back.

Many of you remember what a tremendous influence the old doctors had. You remember when you were a child, sick almost unto death, how anxiously your mother hovered over you, and how many times she went to the door and looked with anxious eyes to see if the doctor was coming. You remember how relieved she was when he entered the door. They were *men*, too, many of them, and fought a magnificent fight against disease. Handicapped as they were, they have left their "footprints on the sands of time."

I take this opportunity to pay my respects to them (and if I may do so with propriety), will say that I am proud of the fact that my father was one of them.

They were giants, gentlemen, and did their work well; but a dwarf standing on their shoulders can see further than they. That's the general practitioner's part—to see further and do more than they, because we have the facilities of which they never dreamed.

Let us get together for a grander, bigger, better society, and work toward the uplift of the general practitioner.

DISCUSSION.

Dr. Douglas (Ozark): I wish to congratulate the essayist on his lucid presentation of the facts. I wish to say he expresses my views. I think the general practitioner needs some sympathy of that kind. We have all heard the burden he has to carry on his shoulders. He is expected to know more than any specialist; display great familiarity with a great variety of symptoms; have a working knowledge of all the carriers of infection; be an expert and realize the tremendous importance of the early recognition of cancer, tuberculosis and many other conditions requiring a considerable amount of skill in diagnosis. He must recognize them even before they begin; for when they begin it is too late, and the surgeon and general specialist will look askance at the belated information and will not have anything to do with them.

Some of the suggestions made by the essayist seem to me to be very valuable. It would certainly be a good thing for the surgeon to pursue the course outlined for his rural brethren and keep open house for the general practitioner. It would certainly be of advantage to be able to participate actively in the relief of these conditions, and would give the earnest student an opportunity to familiarize himself with many important procedures and to better equip himself for the problems that confront him in his daily work.

CARDIAC INHIBITION DURING VOMITING.*

By Dewell Gann., Jr., A. M., M. D.,
Little Rock.

From the Laboratory of Experimental
Surgery, Indiana University.

The act of vomiting is commonly described as follows:

1. There is usually a sensation of nausea and a reflex flow of saliva. Following this, several deep inspirations are taken, accompanied by retching, with the glottis closed. This produces a high negative intrathoracic pressure and thus serves to dilate the esophagus,

at the same time producing a descent of the diaphragm and increasing the intra-abdominal pressure.

2. The cardia of the stomach relaxes, and the pylorus contracts.

3. The muscles of the abdominal wall are thrown into spasmodic contraction, exerting a sudden additional strong pressure, thus forcing the contents of the stomach out through the esophagus.

Many text-books (Text-Book of Physiology, Brubaker, 1904; Experimental Physiology, Hall, 1905; Tigerstedt's Text-Book of Physiology, Berlin, 1906; Elements of Human Physiology, Starling, 1907; Text-Book of Physiology, Ott, 1907; Experimental Physiology, Alcock and Ellison, 1909; Manual of Physiology, Stewart, 1910; Text-Book of Physiology, Howell, 1907-1910-1911) do not mention the effect of vomiting on the heart beat or blood pressure. However, Lyle (Manual of Physiology, 1911, page 156, third paragraph), in speaking of the vomiting center, makes the following statement:

"The center seems to be excited also by cerebral anemia; the vomiting which follows such cerebral anemia is in the ordinary course associated with contraction of the diaphragm and the abdominal muscles, which raises the intra-abdominal pressure. The result is the emptying of the abdominal veins into the right side of the heart through the inferior vena cava; *the arterial blood pressure is consequently raised and the cerebral anemia overcome.*"

This effect would be expected because the high negative intra-thoracic pressure and the high positive intra-abdominal pressure would tend to force a large amount of blood into the heart. In fact, it would seem that the heart might be injured by this means and anesthetists dread the occurrence of vomiting because of the fancied strain upon the heart. On the contrary, such does not occur.

During the summer of nineteen hundred and twelve, while experimenting on intra-thoracic and intra-abdominal pressures, the *blood pressure was observed to fall during vomiting*. Knowing the text-book descriptions, this fact, of course, attracted attention and a series of experiments were performed to determine the cause of this fall.

In all experiments the blood pressure, the intra-thoracic pressure and the movements of

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the abdominal wall were recorded. Vomiting was induced in some cases by means of apomorphin; in others by filling the stomach with hot salt solution, hot soap suds, copper sulphate solution, etc. In every case a high negative pressure was observed in the thorax during the act. The pressure would fluctuate rapidly from zero to twenty-five or thirty centimeters (water) of negative pressure. The blood pressure, however, always fell, some-

times to less than half its former level. The fall in blood pressure was found to be due to a vagus inhibition of the heart, for on cutting the vagi while the vomiting was taking place, and while the blood pressure was at its lowest, there was an immediate increase in heart rate and rise to above the normal in blood pressure. Furthermore, when the vomiting was induced after the vagi had been cut, there was a rise instead of a fall in blood pressure.

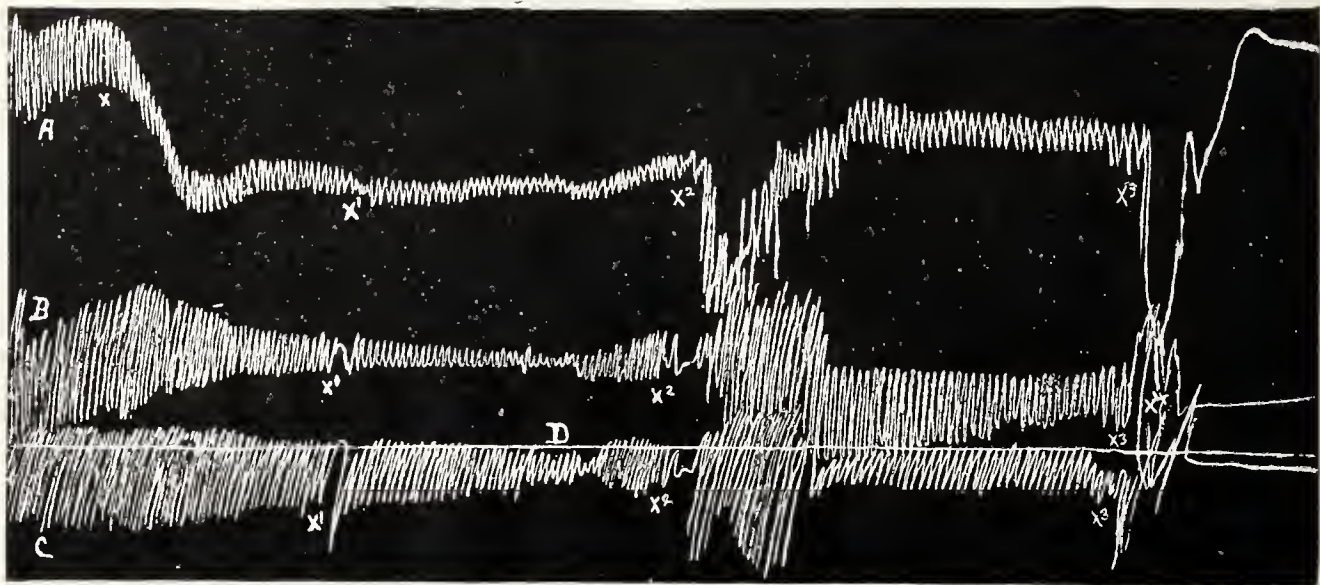


FIG. I.

Record showing blood pressure A, intrathoracic pressure B, and abdominal respiration C, during two acts of vomiting. D is the blood pressure base line. At x one-fifth grain of apomorphin was injected into the femoral

vein. At x¹ the pharynx was irritated. At x² the first act of vomiting began. Note the fall in blood pressure and the slow, long heart beats. At x³ the second act of vomiting began. Note fall in blood pressure. At x⁴ the vagi were severed. Note the sudden great rise in blood pressure to and above normal.

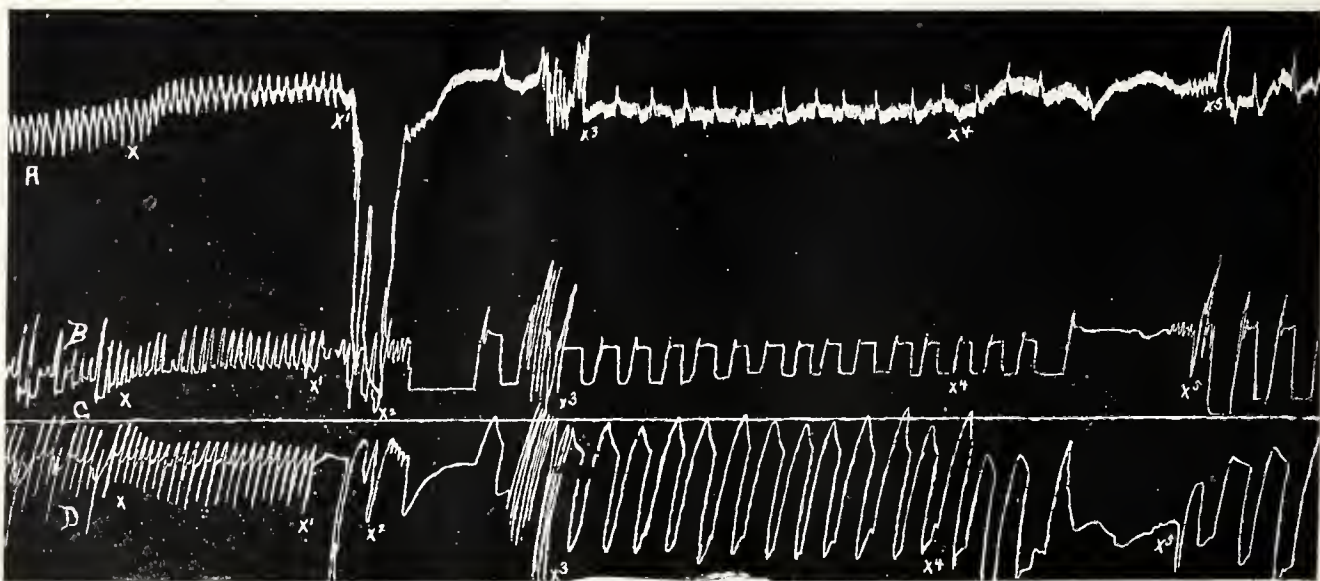


FIG. II.

Tracing showing blood pressure A, intrathoracic pressure B, and abdominal respiration C, during an act of vomiting before and after section of the vagi. D is the blood pressure base line. A x warm soap suds were

applied to the stomach. At x¹ the first act of vomiting began. Note the fall in blood pressure and the slow, long heart beats. At x² the second act of vomiting began. Note fall in blood pressure. At x³ the third act of vomiting began. Note fall in blood pressure. At x⁴ the vagi were severed. Note the sudden great rise in blood pressure to and above normal. At x⁵ the vagi were severed. Note the sudden great rise in blood pressure to and above normal.

introduced into the stomach by means of a piece of rubber tubing. At x^1 vomiting began. Note the marked sudden fall in blood pressure. At x^2 the vagi were severed. Notice the immediate rise to normal. At x^3 the kymograph was stopped. At x^4 warm soap suds were introduced into stomach. At x^5 vomiting again occurred. Note rise in the blood pressure instead of the usual fall when the vagi are intact.

Conclusions:

1. The blood pressure falls during vomiting.
2. It is in some way due to stimulation of the vagus and a resulting inhibition of the heart.
3. This is probably a means of protecting the heart and arteries from a dangerous strain.

The research above described was performed jointly with Prof. W. D. Gatch and Dr. F. C. Mann, and was exhibited in the scientific exhibit at the American Medical Association meeting, Minneapolis, June, 1913. From a personal communication from Dr. Clyde Brooks of Pittsburg, we have learned that he has independently arrived at similar conclusions. We have been unable to find in the literature any account of investigations of this subject.

PRACTICAL LABORATORY DIAGNOSIS.*

By J. C. Simpson, Phar. D., M. D.,
Hamburg.

As a general thing, the people expect more skill of the physician of the present time than they did of the physician ten or more years ago; and they have a right to do so. Many diagnoses which were quite difficult for the old-time physician are easily made by the scientific practitioner of today, if he has command of the instruments of precision which are in every-day use.

A conscientious physician should do, or should have done, any test or examination that will be of benefit in making a diagnosis. Of course, the clinical laboratory will not, and cannot, take the place of physical diagnosis, but oftentimes the laboratory will greatly aid

in the diagnosis and sometimes may be the only means of making an absolute diagnosis. It will take some necessary apparatus and a good deal of time for us to make the tests and examinations ourselves, but we can cure the patient more quickly and should charge for our time and skill in like proportion. However, do not depend on the laboratory to the exclusion of physical diagnosis, but use all data obtainable from the laboratory in corroboration with other signs and symptoms.

With a correct diagnosis of the case made, the treatment is usually easy. The main thing is in getting the diagnosis *correct*, and for this reason I would like to call attention to a few practical data with which every scientific and thorough physician should be familiar.

The examination of the urine furnishes probably the most important and useful information of any of the secretions or excretions of the body. The trouble with most doctors making urinalyses is that they are not thorough. Sometimes a doctor will hastily boil the urine and, on seeing a cloudiness, will jump to the conclusion that he has a case of nephritis. Even if he does find albumen in the urine, he should be very careful about making a definite diagnosis, especially if that is the first time he has discovered albuminuria. There are many different kinds of transient albuminurias, as orthostatic, cyclic, adolescence, puberty, etc., and the albuminuria may disappear the next day. However, regard *all* albuminurias as serious until proved otherwise. Make repeated microscopical examinations and look for casts; see about the age of the patient, quantity of urine passed, etc.

Bile in the urine is of importance, indicating hepatogenous jaundice. However, the absence of bile from the urine does not exclude jaundice.

You probably have had many cases who complained of polyuria. This is often purely functional, especially if only temporary and found in nervous women, but if persistent it usually means disease. Continuous low sp. gr. with polyuria suggests chronic nephritis, while high sp. gr. with polyuria suggests diabetes, especially if the urine is pale.

The amount of indican found in the urine serves as an index to the condition of the small intestine. Usually there is a slight amount, giving a pale, "washed-out" blue color with Jaffe's test. If much indican is

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found in the urine, we know there is more or less intestinal stasis, putrefaction, or something otherwise wrong with the small intestine. Excessive digestion of red meat may cause indicanuria. Simple constipation does not cause it, as in that condition the large intestine is generally at fault.

The estimation of urea in the urine is easily made and of much importance, as nearly four-fifths of the nitrogenous waste of the body is excreted in the urine in the form of urea. Urea is increased in amount of gout, diabetes, emaciation, and all toxemias, but is decreased in acute yellow atrophy of the liver, marked diarrhea, excessive vomiting, and nephritis.

Examination for chlorids in the urine is often very important. We find them markedly reduced in meningitis, and but little affected in typhoid fever. This may be of much importance in the differentiation of the two diseases. It is stated that "one of the first evidences of resolution of lobar pneumonia or of the reabsorption of an exudate or transudate, is the reappearance of the lost chlorids."

Glycosuria may be transient, due to an excessive carbohydrate diet, so we must be on the lookout for such an exception and not call all cases of glycosuria, diabetes. After childbirth we naturally expect to find sugar in the urine of the mother, especially if the milk is pent up in the breast.

Renal tuberculosis or gonorrhea may be easily diagnosed by staining the sediment gotten by centrifuging the urine and examining under the microscope.

A positive Diazo reaction is not an absolute diagnosis for typhoid fever, as it is also positive in other conditions. However, if we fail to get a positive Diazo, we can be pretty certain the case is not one of typhoid.

Triple phosphate or ammonio-magnesium phosphate crystals are found only in alkaline urine, and when found in fresh urine, indicates cystitis.

Oxaluria (oxalic acid crystals in the urine) may point to the formation of a stone in the bladder. Uric acid crystals and urates are often found and may or may not be of importance, depending on the number found. I have found the urine loaded with uric acid crystals and urates in a case of renal calculus.

In an uncatheterized specimen of urine, especially in women, we practically always find a few squamous epithelial cells. If many cells are found, it indicates some irritation in the

urinary tract; thus, many bladder cells would indicate bladder irritation. Blood and tailed epithelium would point to stone in the pelvis of the kidney.

Blood and pus are easily diagnosed by examination under the microscope. If found in renal casts, we are certain the source is the kidney. Pus found only in the first part of the urine is from the urethra. If found in moderate amount in acid urine, the source is usually the renal pelvis. If in alkaline urine, the source is usually the bladder. However, we must take into consideration other conditions, as kind of epithelium or casts present, etc.

Blood in the urine may point to a local disease or condition, as stone, injury, or parasites; or to a general condition, as scurvy, purpura, scarlatina, or profound malarial poisoning.

The importance of finding casts in the urine depends, to a very great extent, on the kind and number of casts found. Hyaline casts are most common and not of very much importance when only a few are found, especially if in people over forty-five. Waxy casts are rare and indicate serious trouble, as amyloid kidney, or terminal stage of chronic interstitial nephritis. In acute nephritis we often find hyaline, granular, blood, and epithelial casts.

This discussion of urinalysis is not meant to be complete, as it would take too much time, but only the important items are mentioned. When you have a case in which the diagnosis is doubtful or difficult, a thorough urinalysis may be very valuable and surprising.

Typhoid fever is almost absolutely diagnosed by the Widal reaction. However, we may fail to get a positive Widal during the first week or ten days. In case of doubt, make a blood culture.

The red count is of especial importance in the anemias. Leucocytosis (increase in number of white blood cells in peripheral blood over normal for the individual case) is found in a number of diseases, as diphtheria, scarlet fever, inflammations, pneumonia, puerperal septicemia, abscess, etc., and especially in the leukemias.

Leukopenia (less than normal number of leucocytes) may be found in malaria, measles, tuberculosis, typhoid fever, and pernicious anemia.

The differential leucocyte count is getting to be as important as the total count, and is of especial importance in such cases as Hodgkin's disease, leukemia, and the anemias. In ucinaria, eosinophilia is one of the most important features. However, it may be absent in very severe cases.

Malaria is accused of conditions which it does not cause, and again it is often the cause of conditions in which we do not even suspect malaria. The scientific way would be to examine the blood, and if the malarial parasite is found, we know the patient needs anti-malarial treatment. You will often find cases of enlarged spleens, with general malaise, drowsiness, etc., which, on examination of the blood, would prove to be malaria, even though the patient may not have had a distinct chill in years.

Septicemias are easily diagnosed by examination of the blood. We can find the causative germ or germs, and thus know which stock vaccine to use, in case we did not have an autogenous vaccine made. Sometimes it may be necessary to make a blood culture, especially if the infection is mild.

Pneumonia, pulmonary tuberculosis and mixed infection of the lungs may be diagnosed by examination of the sputum. The tubercle bacilli usually occur in clumps, and when there are only a few in the sputum, it may be necessary to use some method of concentration, whereby the clumps are broken up, then centrifuge and stain the sediment. In incipient tuberculosis the bacilli are hard to find; so, in a suspected case, the sputum should be examined repeatedly.

You have probably all heard enough about the importance of examination of the feces in a suspected case of ucinaria and other intestinal parasites. Stitt, in his work on "Practical Bacteriology, Blood Work and Parasitology," makes this statement: "In the tropics the examination of the feces vastly exceeds in value that of urine and is possibly more important than blood examinations." While we are not in the tropics, still the examination of the feces is very important. I have seen cases which had been treated for heart disease, kidney disease, stomach trouble, and almost everything else, when the feces, on microscopical examination, proved to be severely infected with hookworm ova. Of course, the heart, kidneys and other organs may be diseased, but this may be only secondary to the intestinal parasites.

The only way to differentiate the intestinal parasites without seeing them is to find the ova under the microscope. Sometimes you may fail to find the ova, as there may be only a few in the feces. However, if the ova are found, then the diagnosis is certain and the treatment will depend on the kind of parasite present.

Allow me to suggest a few pointed questions for the officers to ask their individual members: Have you attended the meetings of your society and taken part in the discussions? Are you in harmony with the purposes and endeavors of our society? What do you think we should do to make ourselves of greater value to our profession? Are you willing to take hold and help us to make the New Year one of increased prosperity? Payment of dues alone, while important, is not sufficient. *We want to make our society of practical business value to you.*—McAlister (Pa.) Medical Journal.

What would be the condition of the medical profession if our societies did not exist? Will each man ask himself this question: "What am I doing to maintain my society and to raise the standards of my profession?" Do you realize what you owe to the medical profession as a whole? Are you doing your part to increase its service to the community?—McAlister (Pa.) Medical Journal.

Will you kindly canvass in your mind all the reputable physicians within your jurisdiction and urge them to support the county societies and the state organization? The many advantages of membership will enlist their support if we can lay the matter before them.—McAlister (Pa.) Medical Journal.

Let us make the year 1916 a record-breaking year. The real purpose of our society is to stimulate good fellowship in the profession, encourage scientific research and protect the reputable physician against anything that may injure our profession. We have a practical as well as an ethical work to perform. Our society protects the physician against hostile legislation, against quackery and irregular practice of all sorts. It puts him in a better business position.—McAlister (Pa.) Medical Journal.

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ANONYMOUS COMMUNICATIONS.

Anonymous communications will not appear in the columns of this Journal, no matter how meritorious they may be.

Editorials.

LET'S HAVE A GOOD PROGRAM IN MAY.

It is time to consider the next annual meeting at Texarkana in May. We must have a good program. Without that essential there cannot be a good meeting. To invite our members to a meeting without a program which will interest and benefit them is to invite them to a feast and spread a barren table. It is up to the members themselves to give us a good program. We have a Program Committee, but a committee can do little without proper co-operation. The Program Committee announces that members desiring to read papers are requested to advise the committee as soon as possible of that fact and give the subjects of the papers they will prepare. There will be only four more issues of The Journal before the annual meeting, and the committee must have time in which to arrange the program.

POVERTY AND DISEASE.

Maj. Gen. Wm. C. Gorgas, in an address last week, said that higher wages meant better health and that as the physician's realm was to combat sickness and find its cause, here was a field for his effort. That is not his exact

language, but it conveys the thought. It would be a bold physician who would tell his wealthy and desirable patient that he should pay his men a wage that would enable them to live decently and in healthful surroundings. The patient would probably tell him to stick to his prescriptions and leave economics alone. Still, the waste of human strength and life through overwork and small pay is something frightful, if we would but open our eyes to it. It is an economic waste, for the wealth of the state lies in the brawn of its labor and it should be properly conserved, less from an economic viewpoint, perhaps, than from a humanitarian purpose for the diffusion of human happiness and well being. The way is not altogether clear how the physician can aid in advancing the millennium, but it may be pointed out some day. The humanitarianism of Dr. Gorgas himself is too much in evidence to call in question. Perhaps he can find a remedy for existing conditions in the application of which the profession may participate. Anyway, it is in the nature of a new thought as applied to the medical profession, and, coming from so eminent a source, cannot be overlooked entirely.

BULLETIN No. 1.

Dear Doctor:

The Journal of the Arkansas Medical Society and the *Co-operative Medical Advertising Bureau* of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this service. It is absolutely FREE to you.

The *Co-operative Bureau* is equipped with catalogs and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in The Journal, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This *Service Bureau* will give you the information.

Whenever possible, the goods will be advertised in our pages, but if they are not, we urge you to ask The Journal about them, or write direct to the *Co-operative Medical Ad-*

vertising Bureau, 535 N. Dearborn Street, Chicago.

We want this Journal to serve you.

Look for Bulletin No. 2 in our next issue.

Sincerely,

YOUR EDITOR.

Editorial Clippings.

THE AMERICAN COLLEGE OF SURGEONS.

For the New Year, the American College of Surgeons announces, through Mr. John G. Bowman, its director, that it has secured an endowment fund of \$500,000.00 from its Fellows. The income only of this fund is to be used.

The ideals of the college are to find expression mainly along the following lines of activity:

First—The regents propose to present to the undergraduate medical students of this continent a clear conception of the college. The senior students who expect to specialize in surgery will be asked to register with the college and to report their appointment as interns to hospitals or as surgical assistants, the college in turn seeking information as to the ability and character of such men and asking the co-operation of the medical schools and all practitioners.

Second—The college will seek data on all matters which relate to hospitals. It will publish studies upon hospital problems, in order both to be helpful to the hospitals and to inform recent graduates as to where they may seek training in surgery.

Third—The college will ask the medical schools to consider conferring supplementary degrees in surgery and its specialties.

Fourth—The college will issue educational monographs to hospital trustees, to the medical profession, and to the public upon the meaning of fitness to practice surgery.

The impetus of the college originates among the surgeons themselves and its Fellows have made sacrifices for its success.—New Orleans Medical and Surgical Journal.

POISONOUS FLY PAPER.

A year ago, in discussing this subject editorially, we gave a partial report of the cases of arsenical poisoning of children from acci-

dentally consuming the contents of fly-destroying contrivances during the summer of 1914. It was gratifying to note the number of medical journals that reprinted our editorial or commented upon the subject. The discussion was evidently a timely one.

For the summer of 1915 we have been able to secure the reports of the following cases:

Month	No.	Fatal	Recovery Indicated	Recovery Doubtful
May	1	1		
June	2			2
July	5	2	2	1
August	14	5	8	1
Totals	22	8	10	4

These cases were reported by the daily press as occurring in the following states: Georgia, 1; Illinois, 6; Indiana, 2; Iowa, 2; Massachusetts, 2; Michigan, 2; Missouri, 1; Nebraska, 1; New York, 1; Oklahoma, 1; Ohio, 1; Pennsylvania, 2; a total of twenty-two cases. This report must necessarily be considered as very incomplete and but an indication of the possible extent of a wholly preventable danger.

We again point out the fact that the symptoms of arsenical poisoning are very similar to those of cholera infantum and that undoubtedly a number of the cases of cholera infantum that occurred were really cases of arsenical poisoning, and death if occurring, was attributed to the fact. The cases reported were of children ranging in age from one to six years. These little patients are not old enough to tell what they have taken when questioned as to their illness, and unless they are seen consuming the fly poison the actual cause of their sickness or death is overlooked and the fatality ascribed to cholera infantum or to some other similar causes, and the error in diagnosis goes undetected.

We repeat, arsenical fly-destroying devices are dangerous and should be abolished. Health officials should become aroused to prevent further loss of life from their source.

Our Michigan legislature, this last session, passed a law regulating the sale of poisonous fly papers. Similar enactments should be secured and enforced in every state in the Union.—From The Journal of the Michigan State Medical Society.

Personals and News Items.

Dr. and Mrs. H. C. Riley of Bayou Meto visited in Little Rock this month.

Dr. L. W. White from Coy, Lonoke County, visited in Little Rock this month.

Dr. and Mrs. W. L. Hartzell of Warren visited in Little Rock this month.

Dr. and Mrs. H. O. Walker of Newport visited in Little Rock this month.

Dr. Robert L. Little of Judsonia visited in Little Rock this month.

Dr. S. H. Whitehead has moved from Ain to Leola.

Dr. W. L. Kitchens has moved from Magnolia to Stamps.

Dr. L. R. Ellis of Hot Springs visited in Little Rock last month.

Dr. and Mrs. R. Q. Patterson of Augusta recently visited in Little Rock.

Dr. and Mrs. C. R. Shinault and daughter, Josephine, spent the holidays in Biloxi, Miss.

Dr. W. H. Moorehead of Stuttgart and Dr. R. E. Rowland of El Dorado visited in Little Rock this month.

Dr. E. H. Wilks of Crossett has moved to Little Rock, and is located with Dr. B. W. Flinn, 307 State Bank Building.

Dr. S. W. Colquit of McKamie, Ark., has been appointed physician of the state penitentiary, succeeding Dr. W. W. Coulter, resigned.

Drs. J. T. Clegg of Siloam Springs and Dr. S. A. Southall of Lonoke have been reappointed by the governor as members of the State Board of Health for a term of four years.

Dr. E. P. Bledsoe, superintendent of the State Hospital for Nervous Diseases, announces the appointment of Dr. Pat Murphy of Little Rock and Dr. Robert E. Rowland of El Dorado to fill the vacancies of Dr. D. W. Roberts and R. J. Doyne, resigned.

Dr. W. L. Treadway of New York, with the U. S. Public Health Service, will be located in Little Rock during the coming year to cooperate with the Committee on Study of Mental Defectives and to investigate any retardation of school children in the state.

The editor of The Journal requests that the secretaries of county societies send in the list of officers elected at the annual meetings, so that the roster may be corrected accordingly.

The annual report of the surgeon general of the United States Public Health service records the largest amount of work performed in the history of that organization. Since the passage of the law of 1912 the public health functions of the service have materially broadened, thereby increasing greatly its usefulness to the American people. Throughout the report the economic importance of disease prevention is made apparent to the reader.

The railroad surgeons of the Missouri & North Arkansas Railway met at Kensett last month and elected the following officers for the ensuing year: Dr. J. E. Phillips, Eureka Springs, president; Dr. H. L. White, Rondo, vice president; Dr. T. B. Bradford, Cotton Plant, secretary-treasurer. The mid-summer meeting in July will be held in Eureka Springs.

The preliminary statement just made public by Director Sam L. Rogers of the Bureau of the Census, Department of Commerce, and prepared under the supervision of Mr. Richard C. Lappin, chief statistician for vital statistics, shows a death rate of 13.6—the lowest on record—per 1,000 estimated population of the registration area of the United States in 1914.

Attention is called to the advertisement of the University of Arkansas Medical Department on last page of cover, giving in detail the daily schedule of the Isaac Folsom Clinics. Owing to the lack of a State General Hospital, this noble charity is very much handicapped in its work of usefulness to our citizens. Under an arrangement with the Logan H. Roots Memorial Hospital, which is located next door to the medical college, out-of-town patients undergoing treatment at the clinics may obtain board, lodging and nurse's attention for one dollar per day.

A preparation put up in imitation of neosalvarsan, having labels in exact reproduction of the imported article, is being distributed to drug stores as neosalvarsan. An examination showed it to be nothing more than salt colored with a coal tar dye. Other worthless

imitation drug products purporting to be acetylsalicylic acid or aspirin, have also been discovered, and several shipments of these preparations have been seized by officials in charge of the enforcement of the Food and Drug Act.

According to a preliminary announcement with reference to mortality in 1914, issued by Director Sam L. Rogers of the Bureau of Census, Department of Commerce, and compiled by Mr. Richard C. Lappin, chief statistician for vital statistics, more than 30 per cent of the 898,059 deaths reported for that year in the "registration area," which contained about two-thirds of the population of the entire United States, were due to three causes—heart diseases, tuberculosis and pneumonia—and more than 60 per cent to eleven causes—the three just named, together with Bright's disease and nephritis, cancer, diarrhea and enteritis, apoplexy, arterial diseases, diphtheria, diabetes and typhoid fever.

THE TRI-STATE MEDICAL SOCIETY OF ARKANSAS, LOUISIANA AND TEXAS.

The Tri-State Medical Society of Arkansas, Louisiana and Texas was convened in the Elks' clubrooms, Marshall, Tex., December 14, 1915, at 9:30 a. m., for the twelfth annual session, with President W. G. Hartt of Marshall, Tex., in the chair.

Upon invitation of Dr. Mann, Texarkana was decided upon as the place of meeting for next year. The following officers were elected: President, Dr. J. E. Knighton, Shreveport, La.; vice presidents: Dr. J. W. Weaver of Hope, Ark.; Dr. C. R. Hargrove of Marshall, Tex.; Dr. C. M. Tucker of Haughton, La.; secretary, Dr. J. M. Bodenheimer, Shreveport, La. (re-elected). Councilors: Arkansas, Dr. R. H. T. Mann; Louisiana, Dr. J. L. Scales, Shreveport, and Dr. J. G. Yearwood, Caspiana; Texas, Dr. S. A. Collom, Texarkana.

Gold medals were awarded the following physicians for the three best papers on original research work presented to the society: First prize, Dr. T. E. Wright, Monroe, La.; second prize, Dr. H. L. McNeil, Galveston, Tex.; third prize, Dr. T. C. Terrell, Fort Worth, Tex.

The society has voted to renew its offer for the next meeting, which will take place at

Texarkana in December, 1916. We feel satisfied this will be the means of stimulating original research work, especially among the younger members of our profession.

A NATION-WIDE BABY WEEK.

The number of communities that are seriously attacking the problem of infant mortality should be greatly increased in 1916 by the nation-wide observance of March 4 to 11 as Baby Week. Successful baby weeks have been carried on in several cities since the first one was held at Chicago in April, 1914. But never until now has there been a nation-wide movement for a Baby Week in cities, towns and villages, in every state in the Union. In every case the local Baby Week campaigns have resulted in more active and enlightened community work for infant welfare and in a wider understanding by mothers and fathers of the fundamental principles of infant care. The state health officers of forty-one states have expressed their intention of co-operating in Baby Week. Many of the state health departments already have admirable pamphlets and traveling exhibits for use in their own states, and circulars of information concerning the practical details of a Baby Week campaign may be secured free of charge from the Children's Bureau of the United States Department of Labor at Washington.

AT WHAT TIME OF LIFE DOES TUBERCULOSIS INFECTION OCCUR?

The fundamental importance of infection during childhood for pulmonary tuberculosis in adults seems to be more and more generally supported by those who have especially to do with large clinical studies of the disease. Repeated demonstration of the well-nigh constant presence of healed or latent tuberculous lesions in nontuberculous adults and the evidence of the tuberculin reaction as to the high percentage of infections in childhood have given support to the view advanced especially by von Behring that primary tuberculosis infection occurs usually in children and rarely in adults. A particularly interesting study of the effect of exposure in childhood on the occurrence of tuberculosis in adults has been reported recently by Wallgren from the pulmonary clinic at Upsala. Of the hundred tuberculous patients, fifty-one gave evidence of

childhood contact with tuberculous associates, whereas of the hundred normal individuals, such contact was found in but thirteen. Allowing for the usual unavoidable errors of statistical studies based on clinical histories, the disparity here seems to be far too great to be merely accidental, and must be considered as strong evidence for the importance of childhood infection. The statement of Pollak that the earlier the infection the more serious the outcome also receives support from Wallgren's statistics, for of the fifty-one consumptives, fifteen had been exposed during the first five years of life, whereas, of the thirteen healthy persons who gave a history of exposure, in but one case had that exposure been before the sixth year. While statistical studies of this sort are extremely difficult and time-consuming, if conducted with enough care and controls to be worthy of consideration, their value in the vital problem of the control of tuberculosis is so great as to make them well worth the effort of those who have access to suitable material, and it is to be hoped, says The Journal of the American Medical Association, that larger series of statistics on this topic will soon be forthcoming to settle definitely this fundamentally important question.

Therapeutics.

INFLUENZA : GRIP.

Since the last epidemic of this disease in the United States in the winter of 1889 and 1890, there has been no year without the disease occurring in many parts of the country. In some regions it is present for months, sometimes occurring in small epidemics, at other times in isolated instances. Were the air-passage secretions to be examined in every case of cold and bronchitis, the influenza bacillus of Pfeiffer, discovered by him in 1892, would frequently be found.

While the well-known acute epidemic types of this disease probably always show this bacillus, it is not always discovered in instances that seem similar and are well termed grip or influenza, as distinct from an ordinary cold or bronchitis. Whether another distinct germ causes an inflammation of the air passages simulating influenza (that is, a closely related germ), or whether it is the same germ that has become so attenuated and changed that it is not recognized, has not been determined. To all intents and purposes,

clinically and practically, these isolated cases without the true Pfeiffer bacillus should be considered as serious as though that germ were present and should be treated the same, as all of these cases seem readily to develop pneumonic conditions.

The toxin produced or elaborated by the influenza bacillus seems to be a vasomotor depressant, and perhaps acts through the sympathetic system. The small blood vessels all over the body seem to dilate and produce capillary congestion, especially of the mucous membranes, the most frequent result being a coryza, a pharyngitis, a laryngitis or a trachitis. The congestion of the larynx causes the harsh, dry, metallic cough which is quite characteristic of this type of influenza. The congestion and swelling of the mucous membrane of the trachea causes a peculiar oppressed feeling, with more or less pain, referred to the upper part of the sternum. The great amount of sneezing which occurs with a typical attack, almost similar to hay fever, is due to congestion of the mucous membrane of the nostrils. The conjunctivae may also be injected, causing pain in the eyeballs and often a serous conjunctivitis, another typical symptom of influenza. In some seasons there seems to be a special tendency to middle-ear inflammations. At other times there frequently occurs a congested drum, with sometimes a hemorrhage bleb or vesicle on the drum, a very painful though easily remedied condition.

The almost constantly present lumbar backache at the onset of this disease is probably due to congestion of the kidneys, and albumin is frequently found in the urine of such patients, and occasionally blood corpuscles. A menorrhagia or a metrorrhagia may occur from the same tendency to dilatation of the blood vessels. There may even be nosebleed, and occasionally a slight hemoptysis without any other assignable cause and without any subsequent development of tuberculosis or any other disease. With this disease, although the fever may be high, the skin is likely to be moist, and there may be profuse perspiration. The pulse may be slower than we normally expect from the height of the fever, and the blood pressure is generally lowered; all of these conditions are due to the tendency of the blood vessels to dilate. This dilatation of the vessels on the surface of the body, with the increased radiation and evapo-

ration, causes the beginning high temperature of typical influenza to be shortlived, although for some days the temperature may rise regularly every afternoon and evening to a gradually decreasing degree.

The heart is generally weak from start to finish in this disease, and even collapse turns can occur. Also, during the first year of the last epidemic many persons were shocked by the disease and collapsed, having no fever and showing no symptoms except a weakened heart and circulation. This is the typical nervous type of the disease. The disease may also cause cerebral symptoms without many catarrhal symptoms, and sleeplessness, irritability and headache are very constant symptoms in all forms of grip; even meningitis can occur from this germ.

Rather an infrequent type of the disease is the bowel type; this can occur without respiratory catarrhal symptoms. Patients so affected have diarrhea, with more or less intestinal irritation, apparently the greatest amount of dilatation of blood vessels in these cases occurring in the mucous membrane of the intestinal tract. These various types, the catarrhal, the nervous and the abdominal, may be interwoven, and a patient may show symptoms of all three.

The future of every case of influenza is prostration, nervous and muscular debility; with more or less circulatory weakness; in other words, there is exhaustion. The patient's resisting power is reduced, and any defect or diseased condition that he may have is aggravated by an intoxication with this germ.

If no complications occur, the convalescent patient should rest as much as possible, should not be subjected to exposure and should be given tonics, and, if necessary to cause restful sleep, for a short period at least, some hypnotic or some physical method of causing sleep. The most frequent complication is pneumonia, and the type of pneumonia that the influenza germs seems to cause most frequently is the lobular or bronchial pneumonic type; pneumonic congested areas may be found in different parts of one or both lungs. Not infrequently, however, true lobar pneumonia occurs.

The next most frequent complication, as suggested above, is middle-ear catarrh. The various sinuses in the region of the nostrils may become affected; all types of indigestion

may occur, and not only sleeplessness and meningismus, but also a very serious meningitis, and even insanity can be caused by these germs and their toxins. Mental depression is a common occurrence, following severe attacks of grip. Pericarditis and endocarditis occur as complications of influenza.

It is thus seen that this disease should always be taken seriously, and every possible mean used to prevent contagion, as it is one of the most highly contagious diseases. It spreads with great rapidity, but only by contact, although it may doubtless be transmitted by infected clothing, and perhaps even by letters, as when the last epidemic first reached America, the first persons affected in many cities were postoffice clerks.

While no season is exempt from this disease, it occurs most frequently in colder weather, and in the colder climates, and in moist climates. Perhaps the more sunshine, the less frequent the disease. While one attack may protect a person for that season, he seems more susceptible to subsequent attacks in following years. There are doubtless many carriers of this disease who may have a persistent and continued subacute or chronic catarrhal infection and very likely are distributors of the disease to others. When one case occurs in a household, other members of the family become readily infected. The same is true in schools and in stores or buildings in which an infected person is closely associated with others. Many an office with one employee affected will soon, on investigation, show every other employee to be more or less seriously affected. While almost all persons are susceptible to this disease, a few seem to be immune. It is the most frequent of all definite infectious diseases.

TREATMENT.

It having been determined or suspected that a patient has influenza, it is much more important that he remain in bed, or at least in the house, than if he has an ordinary acute cold. Also, it is more essential that he be more or less isolated or that measures be taken that he does not spread the disease by spraying from coughing or sneezing, and that he does not use the same towels, napkins, drinking cups and eating utensils as other members of his family. The patient should be prohibited from fondling and kissing children. If the patient is a young child in close

contact with the mother or nurse, all possible precautions to prevent contagion should be taken.

In a word, each family should be taught that grip is an infection, that it is contagious, that it spreads rapidly, that it may have serious complications, and that it frequently leads to pneumonia, which has become in many regions of this country the most frequent cause of death. Therefore, even an apparently mild case of grip or influenza should be treated actively and energetically. As previously stated, whether a schoolchild begins with an acute cold or an influenza, he should be sent home and remain there until he is well, or at least almost well.

As a grip patient is liable to have a chill, or at least feel chilly or have cold sensations up and down the back, anything that makes him warm improves his condition. He may be given hot malted milk, hot tea or hot lemonade, at more or less frequent intervals, until his chilliness has ceased. The patient may be given a hot tub bath and then put into a warm bed in a warm room as an efficient means of making him comfortable and relieving his internal congestions. Hot water bags at the feet and extra coverings to the bed are often needed. A quickly acting stimulant is aromatic spirits of ammonia, given in half teaspoonful doses in hot water or hot lemonade, at intervals of three hours, for three or four times. The various methods suggested for aborting an acute cold may be used in this disease. Much greater care must be exercised, however, if the patient has the influenzal infection than if he has a simple cold, as to when he can return to his work or occupation, or be subjected to exposure to cold or dust, either in a house, building or outdoors.

As soon as the patient feels warm, the temperature may rise quite high, associated with severe headache, backache and irregular pains in other parts of the body. At this time a drug such as acetanilid, antipyrin, acetphenetidinum, or acetylsalicylic acid will be of benefit, provided that the patient is not ambulatory, and that he is not to be subjected to exposure. With this depressing infection such treatment is not wise unless a patient is in bed, or at least remains in the house.

The proper dosage of these drugs is well known, and no one of them should be long continued. The most depressant is undoubt-

edly acetanilid, and perhaps the least depressant is acetphenetidinum. Should depression occur after one of these drugs has been administered or from the disease, circulatory stimulants such as aromatic ammonia, camphor or caffeine should be given and the patient surrounded with dry heat. A hypodermatic injection of strychnin sulphate, 1-30 grain, may be given to stimulate the nerve centers. Cyanosis has not infrequently been caused by acetanilid, but an amount of this drug large enough to cause such a condition should never be given. The following prescription may be suggested:

R

Acetanilidi

Sodii bicarbohnatis

M. et fac chartulas 10.

Gm.

0|50

1|0

gr. viiss

gr. xv

Sig.: One powder, with water, every two hours, except when the patient is sleeping.

R

Acetphenetidini

Phenylis salicylatis

M. et fac chartulas 5.

Gm.

1|50

1|50

aa gr. xxv

Sig.: One powder every three hours.

It should be remembered, as previously noted, that it has been shown that an alkali like sodium bicarbonate inhibits the undesired action of coal tar drugs on the heart; also, that caffeine does not protect a heart from undesirable activities of the coal tar drugs; in fact, it has been shown to intensify such activity.

In making a diagnosis of the infection present, it is well to remember that any of these drugs, and also salicylic acid in any form, may cause eruptions on the skin, either erythematous or urticarial.

But little food is needed during the first twenty-four hours of grip, and it should not be pushed even on the second day, if food is repugnant to the patient. He should have plenty of water and such simple liquid nourishment as he desires. As soon as the appetite returns, food should be pushed. The various catarrhal conditions should be treated as suggested under coryza, pharyngitis and bronchitis. Also, while the patient is kept warm, he should have good fresh air in his room. This is essential with all infections, and especially with infections of the nose, throat and lungs. The bowels should be treated as indications call for. Simple laxatives may be given, if needed, or the soothing bismuth subcarbonate, if there is intestinal inflammation. Phenyl salicylate (salol) may be given, if there is much fermentation in the

bowels, or the Bulgarian form of lactic acid bacilli may be given for a few days.

As soon as the patient begins to convalesce, he should be given tonics, and if there is no inflammation in the ears, quinin is valuable. Some form of iron should generally be given, and possibly a bitter tonic before meals. If the patient is not nervous, a small dose of strychnin three times a day is good treatment. On the other hand, it should be urged that strychnin stimulation is overdone, and a patient who cannot sleep should not be given strychnin or quinin later than the noon meal. Sometimes the sleeplessness following influenza is benefited by the administration of ergot, taken an hour before bedtime. These patients should never be allowed tea or coffee after the noon meal, as they are very susceptible to cerebral stimulation by caffeine and are likely to remain awake for hours from such stimulation. All disturbances or diseased conditions left over by grip must be treated energetically, else they tend to be prolonged. There are few germs that seem to be so tenacious and persistent, at least in their unpleasant results, as is the influenza bacillus. All persons are susceptible to serious consequences from influenza.

A schoolchild's desk, pencils, etc., and immediate surroundings should be thoroughly cleaned after the child has been sent home with an acute cold of any kind. This is especially necessary in cases of influenzal infection.—The Prevention and Treatment of Infections, by Oliver T. Osborn, A. M., M. D., New Haven, Conn.

Propaganda for Reform.

PROPRIETARY DIGITALIS PREPARATIONS. — The Council on Pharmacy and Chemistry reports that it is becoming increasingly apparent that the tincture of digitalis produces the full therapeutic effects of digitalis, and that when it is properly made it is as stable as any liquid preparation of digitalis now available; and that the tincture has the systemic side actions of digitalis, including the emetic, in no greater degree than the various proprietary preparations of this drug. Strophanthin and crystallized ouabain are now available in sterile solutions in ampules and afford a convenient means of promptly securing the cardiac action by intramuscular or intraven-

ous injection (Journal A. M. A., December 4, 1915, p. 2024).

DR. PIERCE'S PLEASANT PELLETS.—The A. M. A. Chemical Laboratory reports that the pills responded to tests for emodin and aloin. Essentially, Pierce's Pleasant Purgative Pellets appear to be an ordinary laxative pill. That the active principle of aloes was found in the pills is of interest in view of the fact that the leaflet advertising Pierce's Pleasant Pellets warns the public against the use of purgatives composed of aloes (Journal A. M. A., December 4, 1915, p. 2025).

NOSE-IONS.—The A. M. A. Chemical Laboratory reports that the circular matter for "Nose-Ions" is a crude attempt to impose on a scientifically trained profession with pseudo-scientific patter about ions, ionic dissociation and the positive and negative charges of ions. It appears that Nose-Ions is essentially an ointment consisting of a petrolatum base, containing some odorous principles such as camphor, menthol and eucalyptus, with some salicylic acid and some quinin (Journal A. M. A., December 4, 1915, p. 2026).

OZOMULSION.—This "patent medicine" long sold as a consumption "cure," has been declared misbranded under the Food and Drugs Act, the therapeutic claims being both false and fraudulent. The preparation was found to be an emulsion of cod liver oil, with glycerine and phosphorous compounds of calcium and sodium (Journal A. M. A., December 18, 1915, p. 2184).

DR. WHITTINGTON'S TREATMENT FOR CONSUMPTION.—This preparation was examined in the A. M. A. Chemical Laboratory. From the analysis it appears that Dr. Whittington's Treatment for Consumption is a flavored syrup devoid of potent ingredients other than alcohol. Dr. Whittington is a member of the Medical Society of California (Journal A. M. A., December 18, 1915, p. 2184).

ROGERS' CONSUMPTION CURE. — Rogers' Consumption Cure and Cough Lozenges and Rogers' Inhalant were advertised for the treatment of diseases of the lungs, etc. The government chemists reported that the first consisted of sugar lozenges, containing a small amount of gum and a trace of oil of rosemary. The inhalant was found to be an alcoholic solution of volatile oil, chiefly rose-

mary. The government held the therapeutic claims made for these preparations false. The owners having made no defense, they were fined (Journal A. M. A., December 18, 1915, p. 2185).

MIST. HELONIN COMP.—The only available information in regard to the composition of Mist. Helonin Comp., Schlotterbeck & Foss, is a statement in a circular that the active ingredients are helonin, senecin and avenin, and the statement on the label that it contains 45 per cent alcohol. The alcohol content is that of strong whiskey. The practically inert drugs asserted to be contained in it would not in the least interfere with its use as a cordial. On the basis of the information supplied by the manufacturer, Mist. Helonin Comp. may be classified as an objectionable and worthless nostrum—unless we regard the alcohol as of value (Journal A. M. A., December 18, 1915, p. 2186).

INCOMPATIBILITY OF QUININ WITH ASPIRIN.—Experiments have shown that weak acids, such as acetylsalicylic acid (aspirin), citric, malic, acetic or tartaric acid under the influence of heat may convert quinin into its poisonous isomer quinotoxin, and cinchona into cinchotoxin. The danger of the formation of quinotoxin in the body cannot be great. Ready-made mixtures of quinin or cinchona preparations with weak organic acids should be avoided (Journal A. M. A., December 18, 1915, p. 2187).

SALVARSAN MADE IN U. S.—Because of the shortage due to the war, salvarsan is made and offered for sale under its chemical name to physicians and hospitals urgently in need of it by the dermatologic laboratories of the Philadelphia Polyclinic. Dr. Jay F. Sehamberg, the director of the Department of Dermatological Research, states that the product made by the dermatologic laboratories has been employed on hundreds of cases with excellent therapeutic results and with no reports of accident or untoward complications (Journal A. M. A., December 18, 1915, p. 2179).

CU-CO-BA, TARRANT.—From the statements of the circulars, it appears to be one of the copaiba and eubeb preparations which at one time were in vogue as a routine measure in the treatment of gonorrhea (Journal A. M. A., December 25, 1915, p. 2257).

POSLAM.—T. A. M. A. Chemical Laboratory in 1909 found that essentially Poslam consisted of zinc oxid 12.01 parts, sulphur 6.67 parts, corn starch 22.00 parts, tar oil 15.18 parts, menthol and salicylic acid, small quantities, fatty base to make 100 parts. For skin affections which may be benefited by ointments the official ointments are as effective as the proprietary products and have the added advantage of being of known and more uniform composition (Journal A. M. A., December 25, 1915, p. 2256).

ORTHOFORM-NEW.—Treasury Decision 2194 contemplates registration of orthoform-new under the Harrison Narcotic Law (Journal A. M. A., December 25, 1915, p. 2257).

Married.

HODGES-GOZA.—In Little Rock, Thursday, December 23, 1915, Dr. William G. Hodges of Malvern and Miss Mannie Goza of Donaldson.

Obituary.

DR. C. A. SMITH.—After an illness extending over several weeks, Dr. Charles A. Smith, aged sixty, chief surgeon of the Cotton Belt railway's general hospital, Texarkana, died at 12 o'clock, January 11, 1916. He is survived by his wife, one son, Charles, Jr., and two daughters, Olivia and Marjorie, all of whom were at his bedside when the end came.

County Societies.

CLAY COUNTY.

The Clay County Medical Society met at Palatka last month and elected the following officers: Dr. R. A. Lyneh, Success, president; Dr. O. R. Stewart, Palatka, vice president; Dr. M. V. B. Walde, Success, secretary.

HEMPSTEAD COUNTY.

The Hempstead County Medical Society met at Hope December 14 and elected the following officers: President, Dr. J. M. V. Russell; vice president, Dr. J. S. Waddle; secretary, Dr. G. E. Cannon; delegate to the State Medical Society, Dr. Don Smith.

MONROE COUNTY.

(Reported by Dr. P. E. Thomas, Jr., Sec'y.)

Clarendon, December 15.—The Monroe County Medical Society met at Clarendon December 14, 1915, at 2 p. m. Owing to the unavoidable absence of Dr. A. H. Gilbrech, Dr. E. D. McKnight presided.

Clinical cases reported by Drs. T. B. Sylar, P. E. Thomas, Jr., and E. D. McKnight.

"How the Society Might Obtain the Most Good During the Year 1916" was discussed at length and is to be taken up again in our February meeting. At that time the places of meeting will be determined and an amendment made to that effect.

The following officers were elected: President, A. H. Gilbrech, Clarendon; vice president, E. D. McKnight, Brinkley; secretary, P. E. Thomas, Jr., Clarendon; censor, T. B. Sylar, Holly Grove; delegate, P. E. Thomas, Jr.; alternate, T. B. Sylar.

Dr. A. H. Gilbrech was appointed to read a paper at the next meeting.

PULASKI COUNTY MEDICAL SOCIETY.

At a meeting of the Pulaski County Medical Society, December 13, 1915, the following officers were elected for the ensuing year: President, Dr. H. H. Kirby; vice president, Dr. A. L. Carmichael; secretary, Dr. S. M. Gates (re-elected); treasurer, Dr. Wm. R. Bathurst (re-elected).

BENTON COUNTY MEDICAL SOCIETY.

It is with unusual pleasure that we find space for the annual report of the Benton County Medical Society, because it is one of the very oldest in the state, dating back forty years, and because while doing good work, The Journal does not hear from it as often as could be wished. It is in order to repeat here what we have often said that we want to hear from the various county societies. This is their Journal and the reports of their monthly meetings are always welcome. The report of the Benton County Society, prepared by Dr. C. A. Rice, secretary and treasurer, follows:

The Benton County Medical Society was originally organized in 1875 as a charter member of the Arkansas Medical Society. One of the five original charter members, Dr. T. W. Hurley, is still a member, although the society has meanwhile been once reorganized.

As stated, there were only five members to begin with, and it is hard to maintain interest without a membership. So, eventually, after struggling along for some years, the society relinquished its charter and disbanded. But on April 30, 1903, a new charter was granted and the society reorganized with some twenty-five members, Dr. Hurley taking up the work in the new society where he left off with the old. With new blood, great enthusiasm and the experience of the older members, the reorganized society prospered, and today with forty-one active members holds a place among the live county societies in the state.

In the last year we have increased our membership and enrolled the following: Dr. C. L. Zugg, Kansas City; Dr. A. A. McKelvey, Greenwood; Drs. T. F. and Guy Hodges, Little Rock; Dr. W. A. Moore, Hindsville; Drs. W. C. Moody, K. B. Huffman and W. F. Mackey, Bentonville; Dr. T. C. Ramsey, Gentry; Dr. C. Doler, Oklahoma; Dr. J. Z. Barnett, Sulphur Springs. There are only about six physicians in Benton County now who for some reason have not enrolled. During the year there has been only one suspension for nonpayment of dues, and no deaths.

The officers are as follows: President, Dr. A. J. Harrison of Lowell; vice president, Dr. J. L. Smiley of Siloam Springs; secretary-treasurer, Dr. C. A. Rice of Rogers; delegate to state meeting, Dr. R. S. Rice of Rogers; alternate, Dr. Chas. H. Cargile of Bentonville; Board of Censors, Drs. J. A. Fergus, E. E. Pickens and R. S. Rice of Rogers; and Dr. J. T. Clegg of Siloam Springs, councilor; Dr. C. E. Hurley of Bentonville, county health officer.

The society met ten times: five times at Benton, attendance 12; four times at Rogers, attendance 12; one time at Siloam Springs, attendance 8. There were several visiting physicians during the year.

Book Reviews.

1914 COLLECTED PAPERS OF THE MAYO CLINIC, Rochester, Minn.—Octavo of 814 pages, 349 illustrations. W. B. Saunders Company, Philadelphia, 1915. Cloth, \$5.50 net; half morocco, \$7.00 net.

The contributions in this splendid volume consist of papers on the alimentary canal, urogenital organs, ductless glands, head, trunk and extremities, and technic.

The book closes with several papers on general subjects, including studies in the etiology

of cancer, surgery in relation to life insurance, a short visit to the surgical clinics of Russia, Finland, Sweden, Norway, Denmark and Belgium; suggestions for writers of medical papers, etc.

TEXT-BOOK OF MATERIA MEDICA FOR NURSES.—Compiled by Lavinia L. Dock, graduate of Bellevue Training School for Nurses. Fifth edition, revised and enlarged. Published by G. P. Putnam's Sons, 2, 4 and 6 West Forty-fifth Street, New York. The price of this volume is \$1.50.

This splendid attempt of a well-known nurse presents from all available sources the important points which concern a nurse, and gives the information simply and directly.

THE MEDICAL CLINICS OF CHICAGO, VOLUME I, No. III (NOVEMBER, 1915).—Octavo of 200 pages, 23 illustrations. Published by W. B. Saunders Company, Philadelphia. Price per year: Paper, \$8.00; cloth, \$12.00.

Among the interesting contributions in this number we find the following: Typhoid fever, with full discussion regarding treatment; neuritis; large fibroid of the uterus producing cardiac and renal disturbance; cholelithiasis—its etiology and pathology. Early surgical interference prevents complications; hysteria in children; the rheumatic triad; a double mitral lesion in a boy of seventeen without subjective symptoms; abdominal pain; a case of brain tumor; eye findings, discussion of choked disk and other ocular manifestations; their value in diagnosis, prognosis, and localization.

PROGRESSIVE MEDICINE.—A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by H. A. Hare, M. D., assisted by L. F. Appleman, M. D. Volume IV. December, 1915. Published by Lea & Febiger, Philadelphia. Subscription price, \$6.00 per annum.

The contents of this volume are as follows: "Diseases of the Digestive Tract and Allied Organs, the Liver, Pancreas and Peritoneum," by Edward H. Goodman, M. D.; "Diseases of the Kidneys," by J. Harold Austin, M. D.; "Genito-Urinary Diseases," by Chas. W. Bonney, M. D.; "Surgery of the Extremities, Shock, Anesthesia, Infections, Fractures and Dislocations and Tumors," by Joseph C. Bloodgood, M. D.; "Practical Therapeutic Referendum," by H. R. M. Landis, M. D.

FRACTURES AND DISLOCATIONS.—Diagnosis and Treatment, by Miller E. Preston, A. B., M. D., with a chapter on Roentgenology, by H. G. Stover, M. D.

813 pages, 850 illustrations. Published by C. V. Mosby Company, St. Louis, Mo. Price, \$6.50.

This book is made up into four parts. Number one is confined to the upper extremity; the second part includes the head and trunk; third, lower extremity, and the fourth comprises special subjects.

The publishers say that this volume contains more illustrations of recent fractures and dislocations than in any other English book on this subject. Almost half of the illustrations have been taken immediately after the injury. This renders the illustrations especially valuable and unique. The book closes with a chapter on "Bone Transplantation" and includes Dr. Albee's technique on autogenous bone graft.

EXERCISE IN EDUCATION AND MEDICINE.—By R. Tait McKenzie, A. B., M. D., Professor of Education and director of the department, University of Pennsylvania. Octavo of 585 pages, with 478 illustrations. Published by W. B. Saunders Company, Philadelphia, 1915. Cloth, \$4.00 net; half morocco, \$5.50 net.

This book gives a comprehensive view of exercises in a complete scheme of education and in the treatment of abnormal or diseased conditions. The chapters on "Obesity—Its Causes and Treatment," "Exercise in the Treatment of Nerve Pain and Exhaustion," "Tic," "Stammering and Chorea" are especially interesting and instructive.

THE PRACTICAL MEDICINE SERIES.—Comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of Charles L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School. Published by The Year Book publishers, 327 S. La Salle Street, Chicago. Series 1915.

Volume IV, "Gynecology," edited by E. P. Dudley, A. M., M. D., and H. M. Stowe, M. D. Price, \$1.35.

Volume V, "Pediatrics," edited by Isaac A. Abt, M. D., and "Orthopedic Surgery," edited by John Ridlon, A. M., M. D., with the collaboration of Chas. A. Parker, M. D. Price, \$1.35.

Volume VI, "General Medicine," edited by Frank Billings, M. S., M. D., and J. H. Salisbury, A. M., M. D. Price, \$1.50.

Volume VII, "Obstetrics," edited by Joseph B. DeLee, A. M., M. D., with the collaboration of Herbert H. Stowe, M. D. Price, \$1.35. Price of the series of ten volumes, \$10.00.

These books present part of the series of ten issued at about monthly intervals, and covering the entire field of medicine and surgery, each volume being complete on the subject of which it treats for the year prior to its publication.

PUBLISHER'S PAGE

POWERFUL ANTISEPTIC AND DISINFECTANT.

A solution of germicidal soap (McClintock) containing 1:5000 mercuric iodid, the active ingredient, destroys common pus-producing organisms in less than five minutes. Prof. F. G. Novy, of the University of Michigan, is authority for the statement. He adds that solutions of mercuric chlorid 1:1000 require more than fifteen minutes to accomplish the same result.

Germicidal soap (McClintock) is at once a sterilizer, cleanser and lubricant. It is useful for sterilizing hands, instruments and sites of operation; for lubricating sounds, specula, etc. It is excellent for vaginal douching, as it tends to dissolve pus, blood and mucus, whereas most other germicides coagulate them. It serves well as a disinfectant wash after attendance upon cases of communicable disease; in certain surface lesions associated with fetid discharge; in skin affections of parasitic origin. It is efficacious as a deodorant in offensive hyperhidrosis. In short, whenever and wherever a powerful disinfectant and detergent is required, this soap would seem to be indicated.

Germicidal soap (McClintock) is supplied in two strengths, containing, respectively, 1 per cent and 2 per cent of mercuric iodid. The stronger soap (2 per cent) is marketed in large cakes only; the milder (1 per cent) in large and small cakes, in collapsible tubes (a soft soap), and in cylindrical sticks (for surgical use). Parke, Davis & Co. are the manufacturers.

Professional interest on the part of physicians has led the Battle Creek Sanitarium to prepare a special volume for members of the medical profession describing, in a technical way, the Battle Creek Sanitarium System.

This book, for free distribution among physicians, gives a complete history of the origin of the sanitarium movement, a review of its progress during the half century of its history, and a detailed account of the methods of treatment, diet and exercise developed and used in the sanitarium.

The sanitarium enjoys the friendship and confidence of the profession to a marked de-

gree, its records showing that two thousand physicians and five thousand members of physicians' families have availed themselves of the health opportunities offered at Battle Creek.

More than ten thousand patients have gone to the sanitarium through the advice of their family physicians.

W. B. Saunders Company, publishers of Philadelphia and London, have just issued their 1916 eighty-four-page illustrated catalog. As great care has evidently been taken in its production as in the manufacture of their books. It is a descriptive catalog in the truest sense, telling you just what you will find in their books and showing you by specimen cuts, the type of illustrations used. It is really an index to modern medical literature, describing some 300 titles, including forty-five new books and new editions not in former issues.

A postal sent to W. B. Saunders Company, Philadelphia, will bring you a copy—and you should have one.

BELLIGERENT OMEN.

She—An apple a day keeps the doctors away.

He—Don't stop there; an onion a day keeps everybody away.—*Proth.*

HOT WATER.

Doctor—What! Your dyspepsia no better? Did you follow my advice and drink hot water an hour before breakfast?

Patient—I tried to doctor, but I was unable to keep it up more than five minutes at a stretch.

THE SPIRIT WITHIN HER.

"So you're going to get a new family doctor in place of your old medical adviser, Mina, dear?"

"Oh, yes, he is too absent-minded for me. The other day he was examining me with the stethoscope, and while he was listening he suddenly called out, 'Hello, who's this speaking?'"—*Exchange.*

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Next Annual Session, Detroit, Mich., 1916.

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COUNCIL ON HEALTH AND PUBLIC INSTRUCTION—H. B. Favill, Chairman, Chicago, 1916; Walter B. Cannon, Boston, 1917; W. S. Rankin, Raleigh, N. C., 1918; H. M. Bracken, Minneapolis, 1919; Milton Board, Louisville, Ky., 1920; Frederick R. Green, Secretary, 535 N. Dearborn St., Chicago.
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Next Annual Session, Texarkana, May, 1916.

PRESIDENT—J. C. Wallis, Arkadelphia.
FIRST VICE PRESIDENT—C. J. March, Fordyce.
SECOND VICE PRESIDENT—F. T. Murphy, Brinkley.
THIRD VICE PRESIDENT—O. M. Bourland, Van Buren.
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COMMITTEE ON CANCER RESEARCH—M. D. Ogden, Chairman, Little Rock; H. H. Kirby, Little Rock; W. A. Snodgrass, Little Rock.
COMMITTEE ON MEMORIAL TABLET IN MEMORY OF THE LATE DR. JOHN S. SHIBLEY—L. P. Gibson, Chairman, Little Rock; J. G. Eberle, Fort Smith; A. E. Hardin, Fort Smith; Frank Vinsonhaler, Little Rock; M. D. Ogden, Little Rock.

COUNCILOR DISTRICTS AND COUNCILORS, 1915-1916.

FIRST COUNCILOR DISTRICT—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph counties. Councilor, F. L. Nelson, Corning. Term of office expires 1917.
SECOND COUNCILOR DISTRICT—Clebune, Fulton, Independence, Izard, Jackson, Sharp and White counties. Councilor, L. T. Evans, Barren Fork. Term of office expires 1916.
THIRD COUNCILOR DISTRICT—Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis, and Woodruff counties. Councilor, H. H. Rightor, Helena. Term of office expires 1917.
FOURTH COUNCILOR DISTRICT—Ashley, Bradley, Chicot, Cleveland, Desha, Drew, Jefferson and Lincoln counties. Councilor, E. C. McMullen, Pine Bluff. Term of office expires 1916.
FIFTH COUNCILOR DISTRICT—Calhoun, Columbia, Dallas, Lafayette, Ouachita and Union counties. Councilor, H. H. Henry, Eagle Mills. Term of office expires 1917.
SIXTH COUNCILOR DISTRICT—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier counties. Councilor, C. A. Archer, DeQueen. Term of office expires 1916.
SEVENTH COUNCILOR DISTRICT—Clark, Garland, Hot Spring, Montgomery, Saline, Scott and Grant counties. Councilor, J. B. Crawford, Benton. Term of office expires 1917.
EIGHTH COUNCILOR DISTRICT—Conway, Johnson, Faulkner, Perry, Pulaski, Yell and Pope counties. Councilor, W. A. Snodgrass, Chairman, Little Rock. Term of office expires 1916.
NINTH COUNCILOR DISTRICT—Baxter, Boone, Carroll, Marion, Newton, Searcy, Stone and Van Buren counties. Councilor, Leonidas Kirby, Harrison. Term of office expires 1917.
TENTH COUNCILOR DISTRICT—Benton, Crawford, Franklin, Logan, Sebastian, Madison and Washington counties. Councilor, J. T. Clegg, Siloam Springs. Term of office expires 1916.
DELEGATES TO AMERICAN MEDICAL ASSOCIATION—Robert Caldwell, Little Rock; R. C. Dorr, Batesville.

THE JOURNAL

OF THE

Arkansas Medical Society

Owned and Published Monthly by the Arkansas Medical Society

VOLUME XII
No. 9

LITTLE ROCK, FEBRUARY, 1916

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BOOK REVIEWS

JUST ISSUED

Wadsworth's Postmortem Examinations

This new work is based on Dr. Wadsworth's sixteen years' constant study of the human body and of some 4000 postmortems.

So far as possible, the principles are presented rather than rules. The *actual technic* is explained in detail.

Many errors, commonly accepted as facts, are pointed out and corrected.

A strong feature is the great attention given to the *interpretation of findings*, bringing out many important points.

Anatomists, surgeons, medical men of all departments will find a great deal of real value. To those who are called upon to perform postmortem examinations this new book is indispensable because it gives them the new technic, the new interpretation of findings.

The *illustrations* are actual photographs taken by Dr. Wadsworth himself. All were made from the *fresh cadaver*—not from preserved specimens. There are chapters on medicolegal questions and on photography.

Octavo of 600 pages, with 304 original illustrations. By WILLIAM S. WADSWORTH, M. D., Coroner's Physician of Philadelphia. Cloth, \$6.00 net; Half Morocco, \$7.50 net.

Send for Descriptive Circular

W. B. SAUNDERS COMPANY

West Washington Square, Phila.

Lynnhurst Sanitarium

NEW BUILDINGS COMPLETED IN MARCH, 1915



Situated in the suburbs of Memphis, Tenn., on 28 acres of beautiful woodland and ornamental shrubbery. Modern and approved methods in Construction and Equipment. Thorough ventilation, sanitary plumbing, low pressure, steam heat, electric light and fire protection. An abundance of pure water.

Special facilities for giving Hydrotherapy, Electrotherapy, Massage, Physical Culture and Rest Treatment. Experienced nurses. For treating Nervous Diseases, Mild Mental Disorders, and an improved treatment for Opium-Morphin Addiction, which eliminates intense sufferings and cravings.

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THE JOURNAL

OF THE Arkansas Medical Society

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. XII

LITTLE ROCK, FEBRUARY, 1916

No. 9

Original Articles.

ARTERIOSCLEROSIS.*

By O. M. Bourland, M. D.,
Van Buren.

The magnitude of the subject chosen for your consideration today was not realized when first selected, but, upon investigation, the task of presenting to your intelligent criticism this far-reaching subject (almost limitless in the domain of medicine) loomed up so formidably as almost to dissuade me from the attempt. I say attempt, for the handling of this vast subject with proper fullness would indeed be a Herculean task. I shall, therefore, try to realize my limitations and not overtax my capacity.

Arteriosclerosis, or atherosclerosis, indicates a hardening of the arteries. This condition is usually thought of as occurring in the middle and senile age, but it is found in all periods of life—in the infant, child, middle, and advanced age.

The pathology of this condition is a deposition of calcareous, or chalky matter, in the media or fibro-muscular layer of the artery, thus producing a degeneration. The wall of the vessel is thickened, its elasticity diminished, and its nutrition impaired by choking of the vasa vasorum.

The adventitia, or outer coat, also suffers from inanition, as its nutrition is supplied from the vasa vasorum. It becomes uneven and bumpy from degeneration of its natural cartilaginous into calcareous tissue.

The intima, or inner coat, obtains its nutrition from the blood current flowing through its lumen, by absorption through its cells, of which the intima is constituted.

The natural arterial elasticity being minimized to a greater or less extent by this process, an effort is made by nature to overcome this circulatory resistance by strengthening the power of the central organ (or pump) of the circulation by a hypertrophic process. This re-establishes the equilibrium of the circulation, which may last for years if a favorable condition of the economy be maintained.

But, the entrance into the present balanced condition, of other factors, as acute infections such as pneumonia, smallpox, typhoid fever, influenza, rheumatism, or gout, would destroy the existing truce between the contending elements, and the vessel wall being weakened by this new factor, fails of its purpose as blood container and distributor, and stretches or breaks at the points most weakened by the onslaught of the enemy of its nutrition.

The result is an aneurysm of the heart or arteries, and extravasations, which may prove suddenly fatal when of large extent and in vital situations, as aneurysmal rupture into the pericardium, or brain—or other parts if sufficiently large.

The formation of thrombi and emboli in the smaller vessels where there is a lack of collateral circulation may occur, and abscess or gangrene result.

This sclerotic degeneration of the vessels is from an inherited condition in some, and an acquired in others. The same exposure in different subjects may result quite differently owing to difference in ancestral fibre.

Dr. Oliver Wendell Holmes said, "A man to live to the age of seventy, should pick his ancestors a hundred years before he was born."

Dr. Osler says, "We do not know of what kind of vital rubber we are composed." On this quality of "vital rubber" depends our success or failure in prophylaxis and treatment.

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, held in Little Rock, May 3-6, 1915.

Oh, what a legacy to bequeath to our progeny—a first-class “vital rubber”—to transmit a pure and fully developed body tissue, unseathed by the avoidable hindrances to body development, such as alcohol, or other drugs which limit tissue metabolism—and uncontaminated by the maintenance of a habitat for that arch enemy of arterial tissue, the *treponema pallidum*. Worldly goods are not to be compared to such a bequest. For what does it profit a man should he gain the whole world, but should lose his health.

Some persons, although exposed to all sorts of infectious diseases, go through life without contracting any of them. The same resistance to causes producing *arterial* disease is possessed by many. These people are constructed of first-class “vital rubber.” Others, without even any undue exposure, develop arteriosclerosis before middle age.

One is struck in investigating this subject, with differences among observers as to the factors entering into the etiology. Hertz sent out letters to 822 doctors in Austria asking their views as to cause: Emotional and nervous, 150; physical exertion, 146; age, 138; alcohol, 133; tobacco, 88; syphilis, 77; heredity, 72; metabolic disturbances, 19; coffee and tea, 13; infections, 4.

Osler claims that all aneurysms in persons under thirty are due to syphilis.

Such reports—and others seem to have had similar experiences—are discouraging to anyone desiring to arrive at something definite. Some report cases entirely among farmers who drank no intoxicants. Another, doing practice among workmen who drank one or two litres of wine daily, found few cases.

Males are more often affected than females. Females do not develop it as early as males—not sooner than age fifty. Some claim it occurs more frequently in the black race earlier in life than in the Caucasian. I, myself, have frequently, seen it in black men and women, more frequently among the women, most of them suffering from heart lesions. I attributed the condition to overwork and insufficient nourishment.

Mental overwork and mental worry, and overeating with absence of pleasurable physical exercise are most important in etiology.

A few years ago I heard Dr. W. W. Graves of St. Louis bring out something along this line. He presented to the A. M. A. several

cases of what he denominates scaphoid-scapula. The subjects were boys of age, say, ten to twenty. They all appeared anæmic, thin, and under par. They all had a peculiar curve in the vertebral border of the scapula—a concavity, where normally there is a convexity. He attributed the condition to hereditary syphilis, and all were arteriosclerotic.

Drugs and foods which raise the blood pressure are considered causative factors. But Dr. Cabot recently showed that alcoholics do not produce arterial disease. Of course, exposure and other excesses incident to the use of alcoholics was not considered in his report.

Tobacco, used to excess, is, I believe, an important foe to normal arteries.

Erb has reported a large series of intermittent limp (claudication). He says the abuse of tobacco was the main etiologic factor in one-half the cases, and repeated exposure to cold and abuse of alcohol were responsible for most of the other half.

Tobacco acts as a slow poison, causing an increased heart rate. A constantly increased heart rate must sooner or later result in degeneration. Excess in the use of tea and coffee cause hypertension and retard tissue waste. A continuation of these will also produce degeneration.

Physical overwork, either under favorable or unfavorable environment, is a factor; but mental overwork, especially when coupled with mental worry, is probably responsible for the greatest number of cases. And, so frequently are added the baleful influence of intemperance in food and drink, producing auto-intoxication.

The products of muscular waste, particularly hypoxanthin, when injected into the circulation, experimentally, produce high tension.

A proper balance between activity and relaxation must be maintained in all the functioning organs, or disease must result. A too prolonged or continuous training of athletes may result in hypertrophied heart, which never returns to its natural condition, and as advanced age renders the arteries more vulnerable, may induce aneurysm, valvular insufficiency, or arterial rupture.

A sclerotic condition in the Bundle of His (or auriculoventricular bundle) results in heart block which may be partial or complete.

In this condition we find the remarkable phenomenon of many contractions (sometimes as high as nine) of the auricles to one of the ventricles. In complete heartblock there is no relationship between the beats of the auricles and ventricles.

The Stokes-Adams Syndrome is due in many, if not all, cases to sclerosis of the arteries supplying the Bundle of His, as degenerative changes are found in this muscular Bundle amounting sometimes to ulceration.

In true angina pectoris, sclerosis of the coronary arteries is found, and in many cases atheromatous heart valves.

Sclerotic arteries in the brain lead to improper nutrition of the brain substance, and softening, with its calamitous results of epileptiform seizures, abscess, aphasia, hemiplegia, apoplexy, etc.

Arteriosclerosis is a factor in chronic bronchitis. Neurasthenics are prone to develop it early, and chronic renal disease is almost always associated with it.

The cases with highest tension are those of interstitial or parenchymatous nephritis. A poison is elaborated in the kidney, which, being absorbed into the circulation, acts on the vasoconstrictor center as a stimulus, or acts on the musculature of the small arteries over the entire body.

Janeway has shown that general arteriosclerosis without marked disease of the splanchnic arteries does not cause increased blood pressure.

There are many cases in which the abdominal vessels are primarily involved. These are termed angina-abdominalis. Constant overloading of the stomach with rich, highly-seasoned food is blamed for this form.

Arteriosclerosis is always present in senile dementia and general paralysis of the insane.

The disease is represented in the spinal cord by Raynaud's disease, manifesting itself in chilblains, dead fingers, neurotic finger tips, and extensive multiple gangrene. Also by erythromelalgia, described by Weir Mitchell. One or more extremities are affected by pain, local flushing, and local fever, made worse if the parts are dependent.

Very great responsibility rests upon the physician in the management of these cases, the most important being early diagnosis. He should train himself to be constantly on the outlook for any of its protean manifestations. Prophylaxis is especially important in these

cases as medical, or, in fact, any other treatment, is not so efficacious as we find in many other disease conditions.

Even with eternal vigilance the physician will never be able to eliminate from his clientele all cases of this disease, as heredity, environment, and the perversity of human nature will probably continue to furnish him material for his most earnest study.

It is not true that every man is the architect of his own fortune. The physician knows that man's physical, mental and moral fibre is the resultant of these attributes in his ancestors. This, of course, does not nullify the effect of environment in development. Instructions in the proper manner of living, inculcating the principle of promoting a balance between exercise and relaxation, should not be withheld for a moment.

Unfortunately, sense of duty, or overweening ambition, in many instances not only nullifies the physician's efforts at proper control of the patient's mode of life, but even the physician himself is frequently drawn into the maelstrom of unreasoning activities and is swept into the advanced stage of symptoms, which may preclude a return to the normal.

As proof of this assertion, it would be interesting to know how many physicians within the sound of my voice have adopted any systematic form or mode of life embodying exercise, rest and recreation for himself. How many take walks, play golf, climb hills, ride horseback, or perform certain prescribed muscular movements? I, myself, have found muscular movements practiced a few minutes, twice daily, beneficial in promoting a balance in the nutrition and waste of the body tissue, which is of prime importance in the prevention of the condition under consideration. I consider these muscular movements, especially without the use of apparatus, of greatest importance, as the patient, as a rule, will not carry out a suggestion if much time is required, or resort to gymnastic appliances.

By insistence, the physician should establish a regulated system of treatment by means of pleasurable pursuits and sanity in food and drink. Baths, hot and cold, and massage, are pleasant and valuable means of treatment. These must be used intelligently, as haphazard use of them may prove harmful.

Oertel established at Munich a treatment by graduated walks which was very beneficial. He, himself, was a victim of the disease and

was cured by his system, which he undertook in opposition to advice of physicians.

His treatment consists of walks, climbing hills of gradually increasing steepness, watching the effects closely and insuring sufficient rest during the climb not to overdo the heart, but just enough exercise to strengthen it. He also restricted the quantity of fluids.

The Schott treatment consists of systematic muscular movements with a sufficient amount of resistance on the part of the patient, to strengthen the heart's action.

The high frequency electric current has been reported beneficial. One observer reports 266 cases in which a blood pressure of 130 m.m. was reduced 5 to 10 m.m. In 120 cases blood pressure was reduced 15 per cent in seven sittings. There remained permanent improvement in some after several months. It is said to relax the musculature of the arteries under the influence of the nerves.

The nitrites and nitroglycerine administered for the relief of angina pectoris are valuable, but for continued use the iodids are more favored. In my own experience the iodids have proven valuable.

In a case now under my treatment, the iodids have always been of benefit. This patient is the subject of claudication (or intermittent limp), paresis of tongue and face, and one lateral half of body. In this case I find calomel of very great benefit given in small doses, say, for several days, and then rest for a week or two. I also usually combine it with squills.

In other cases now under my care, I always find these remedies beneficial. Of course, the nitrites and iodids are frequently prescribed synchronously.

Irritating diet must be avoided, and lacto-vegetarian diet advised. In these cases much valuable information may be obtained by interrogating the kidneys. If an abnormal quantity of urates be present, proteids must be further restricted. Indicanuria shows fermentation from too much starch and sugar. Although found in many varying conditions, and now not considered of as much diagnostic importance as formerly, it at least indicates perverted metabolism. Hence, a studied effort should be made to maintain a balance between the intake and the output.

The liver, as well as the kidneys, plays an important role in the generating of toxic acids, which are absorbed into the circulation to produce arteriosclerosis.

The great insurance companies have given us a suggestion which, if acted upon, would be the most far-reaching of anything ever adopted by the medical profession in its entire history. This is the examination of their members at regular intervals, by their medical examiners. The physician should examine all his constituents in this manner who have reached middle age, and even much before that age, as at such age much could be done, while later, when established sufficiently to produce undoubted symptoms, our means are inadequate. Should this suggestion attain general recognition by the medical profession, longevity would in two generations, I believe, be increased from ten to twenty years.

As individual resistance cannot be estimated, it should be remembered that with proper attention to rules laid down by the physician, cases with blood pressure of 170 m.m. or upward may survive for many years in comfort, and may, by treatment at resorts at stated intervals, or at home, should proper facilities be installed, attain a condition free from symptoms observable by the patients themselves, and markedly improved as shown by the physician's tests.

It must not be forgotten that attempts at reduction of tension by means of vaso-dilators may have to be abandoned on account of their depressing effect. Such cases are proof of the compensatory nature of the condition, but presenting abnormal symptoms.

I have here produced from Sir Lauder Brunton a diagram showing the arterial pulse in aiding circulation in the veins—and self-massage of the artery.

During diastole, the artery being at its smallest caliber, leaves more space for the expansion of the vein which accompanies each artery, they both being enveloped in a fibrous sheath which also contains lymph.

During systole the expansion of the artery lessens the quantity of blood in the vein. This ebb and flow pressure exerted by the vessels upon the lymph pushes it into the vessel walls. It is evident that if the difference in the size of the artery in contraction and expansion is great, there will be correspondingly free circulation of lymph in the sheath of the vessels.

While much investigation has enlightened us very markedly in recent years, we apply very much the same treatment in the present day as was expressed before the Christian era by Solon, in the "Dialogues of Lucian," who

said, "That which those who winnow wheat, do for it, gymnastic exercises accomplish in our bodies for us."

ALCOHOLIC NEUROSIS.*

By Sam W. Colquitt, M. D.,
McKamie.

"A neurosis is a nervous affection without lesion."—McLaughlin.

"A functional disorder of the nervous system; an affection characterized by excessive, diminished or perverted action of nerves or nerve centers not attributable to any structural alterations."—Duane.

Hare divides "Neurosis" into two parts only: one "Occupational," the other "Traumatic." He does not, it would seem, accept a division under which one could class the type which this paper deals with. The nearest he comes to connecting alcohol with a neurosis is in his chapter on "Alcoholism," and division of "Chronic." In this he states: "In that form of chronic alcoholism in which the patient is never drunk, but always has alcohol in his body, the chief symptoms are irritability of temper, gradual mental deterioration, localized sensory and motor palsies, and finally dementia."

I take the viewpoint that if the constant use of alcohol can bring about a train of results as mentioned above, it could cause *trauma* as surely as could any other shock of whatsoever source. Hence, my conclusion in the following described case, in which I have made a diagnosis of alcoholic neurosis:

D. H. L., white, male, age sixty-four years; occupation, farmer. Personal history: Had erythematous diseases when a small boy. Never had any injury of any moment. Has always used tobacco to an excessive degree and was an inveterate user of alcoholic beverages, and was never a very careful chooser of "brands." Fact is, he drank anything that would intoxicate. Has suffered "acute alcoholism" once or twice, and usually was saturated most all fall and winter, but had of late years modified his drinking to some extent.

Has been married twice. Has one child living, one dead, by first wife. His second wife bore him eight children. One only of

this number is living—this a boy of thirteen years.

Here I desire to deviate somewhat to give you a most peculiar situation connected with these children, and see if you gentlemen will agree with some of his neighbors in saying he had the same affection his children died of.

As just stated, seven of his second set of children died. Death occurred at ages of from three to six or seven years, and it is claimed all died of a like affection, the nature of which, as I understand it, puzzled the attendant physicians to such an extent that none seemed willing to risk a diagnosis. One with whom I talked blandly stated, "I don't know what the trouble was." These children were attended by five physicians first and last. The symptoms of each ran about thus: Sudden and wild delirium; intense thirst, one being found on top of the mantle hunting for water; temperature not so high as would be indicated by delirium, and in some instances normal for a day or so before death; stools of peculiar bruised grass color in appearance; constant and persistent nausea, and would vomit or eructate all foods, water or medicine—however, some finally held all foods and medicines. One recovered from first attack to die of a subsequent attack about one year later. All died in from four to ten days, and one or two seemed doing fine and would die suddenly. There could be no history of syphilis elicited from either parent. However, I will state there was never a blood examination made.

Subjective symptoms: Now we will get back to the subject of this paper. There were hallucinations. Once he struck a consulting doctor, and with an oath tried to drive "that old grey mule out." Loss of taste and sense of smell. Could not feel prick of pin over certain areas. Anorexia, often, in great despondency, saying he had lost his taste for liquor. There was considerable pain and tenderness in the epigastrium, and at times some pain in low umbilicum region. Could, seemingly, at will spit food, and yet at times would hold and utilize his nourishment admirably. Occasionally there would be seasons of semiconsciousness, but always he would arouse and answer coherently any question propounded by the doctor. Always despondent and melancholia. Certain of ultimate fatal termination of his sickness.

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Objective symptoms: Temperature subnormal to $\frac{1}{2}$ to 1 degree abnormal. No rhythmic range. Liable to be normal, abnormal or subnormal at any hour day or night. Skin nearly always cool and dry, patient sometimes complaining of hot flushes. Pulse usually fast, running from 110 to 120, or even faster. Small and thready and easily compressed. There were no intermittences. Liver small and cirrhotic. Bile reduced in quantity and pail in color. A dryness of mouth and stool was constant and little relieved by administration of purgatives. There was tenderness on pressure over the liver. Spleen did not seem to be affected. Belly flat and there was very little peristaltic action. Bowels constipated, except on administration of saline laxatives. Urine showed only a trace of albumen; some indicanuria. Really no kidney complication found. No blood examination made.

During entire course of disease there would be intervals of satisfactory progress, but to change within a few hours to a most dissatisfactory condition, getting into one fully as bad, if not worse, than before improvement started. These changes could sometimes be accredited to some indigestion. A few times I gave a draught of brandy or whiskey (always greatly diluted) and noted the results, and found them invariably the same. There was a return to old conditions; dryness of mucous membranes, nausea, restlessness, sleeplessness, hallucinations, etc.

Finally, by absolute restriction of any stimulant, a small improvement was noted, and a gradual passing away of nervous symptoms until some two or three weeks later I ceased my visits. I saw him one to three times per week for two or three weeks more before dismissing him.

The treatment consisted briefly in sedatives, mild laxatives as needed, well-selected nourishment, rest and quiet.

The case continued over a total course of some eight to ten weeks under my constant care, and he did not regain his normal tone for about ninety days.

The practicing physician has responsibilities in regard to the registration of births and deaths, and the reporting of cases of the notifiable diseases which he alone can confirm. If he fails to register a birth he is neglecting the welfare of his patients, the child, and its

mother. If he fails to give accurately the data called for in the medical part of a death certificate he is neglecting the welfare of the community. If he fails to report promptly his cases of the notifiable diseases he is obstructing the work of the Health Department and making difficult the control of disease and the protection of the health and lives of his fellow-citizens.—John W. Trask, Assistant Surgeon General, U. S. Public Health Service.

CONGENITAL PYLORIC OBSTRUCTION.*

By T. Wistar White, M. D.,
St. Louis, Mo.

Considering congenital hypertrophic stenosis, pyloric spasm and other more obscure allied conditions.

Though the first complete description of congenital pyloric stenosis by Hirschsprung (Beard of Vermont reported very lucidly a case with necropsy nearly one hundred years before) appeared in 1887, it aroused little interest, if we are to judge by the brief attention accorded it in standard text-books and the few cases reported. Thus, Holt in his 1908 edition speaks of "sixty-eight reported cases." For the last few years, however, current medical literature has been full of this subject and the recorded cases must have reached thousands. The earlier writers seem to have dealt mainly with the true hypertrophic pyloric stenosis, while more recently spasmodic pyloric stenosis or pyloric spasm has received a great deal of attention.

The cause of either of these conditions is unknown. Pyloric spasm, which may be due to gastric irritation from improper food, etc., was thought by Thompson always to precede and cause hypertrophy of the pylorus. That it is a congenital overgrowth of the muscle, is the generally accepted view. To support this theory is the post-mortem finding of a hypertrophied pylorus in a fetus delivered dead at term and also in a premature stillborn.

According to Pfaundler, hypertrophic pyloric stenosis affects mainly the Anglo-Saxon, while the spasmodic pylorus is frequent among the Latins. Two of the cases to be

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referred to in this article were of Jewish race. No negroes are reported. Boys are affected oftener than girls. Two of Dr. Saunders' cases were the second in their respective families. According to most writers, this affection is far more frequent in breast-fed than in bottle babies. No figures are given as to the frequency of this anomaly per birth rate. Yet, out of one thousand admissions of supposedly normal babies to Bethesda Foundling Home, five developed this condition. All five of these were artificially fed. One was submitted to operation, and another died of acute enteritis some time after making a symptomatic recovery. Both of these had hypertrophied pylori. The other three presented every symptom of a severe pyloric obstruction, but recovered under tube feeding, which procedure will be taken up at length later. Nearly all writers on this subject state that this condition is found almost exclusively in breast-fed babies. These five cases should go far to support such a high percentage, namely, one-half per cent, when we realize that those five foundlings were bottle-fed babies almost from birth.

Most writers have divided congenital pyloric obstruction into the spasmodic and the true hypertrophic form. For our purpose, I shall adopt a different classification. Undoubtedly a simple spasmodic pyloric stenosis does exist and is probably accountable for some of the persistent and intermittent vomiting and so-called "colic," exhibited by some babies, as well as for the more severe forms which are identical in symptomatology with pyloric hypertrophy and can rarely be positively differentiated from the latter. It is also probable that, in all cases of hypertrophic stenosis, a spasmodic element is present. As an example of the difficulty of distinguishing between the two conditions, note the following cases:

Baby A: Third month; typical propulsive vomiting, loss of weight, food retention, peristaltic waves, enlarged stomach, etc. Symptoms of intermittent character; sometimes no vomiting for a week. No tumor palpable. Diagnosed as pyloric spasm. But on account of severity of symptoms and loss of weight, operation performed and extreme hypertrophy found.

Baby N. B.: Second month; typical symptoms of pyloric stenosis; vomiting, loss of weight, very prominent waves over enlarged

stomach, retention of food four or more hours, etc. Symptoms were constant and severe. Improvement and gain in weight followed on gavage. But with return of severe vomiting, surgical interference was thought advisable; and, on operating, no tumor, but normal pylorus, was found. This was a case of pyloric spasm.

As differential diagnosis between true hypertrophy and spasm is rarely positive, and as this particular treatment is the same for both, we shall consider them as the same or, as different degrees of the same condition.

CLASSIFICATION.

Group 1. All cases sudden in onset and presenting severe symptoms from the start. (Reverting to the usual classification, all of these cases are probably hypertrophic pyloric stenosis.)

Group 2. Cases typical in character, projectile vomiting, large stomach, peristaltic waves, loss of weight more gradual. (This group of border-line cases undoubtedly consists of representatives of both the hypertrophic and spasmodic forms.)

Group 3. Certain cases presenting some of the classical symptoms, but not obviously pyloric obstruction.

GENERAL SYMPTOMS.

Vomiting; the first and most obvious symptom is vomiting. This may first appear at any time from birth to three months of age, though most frequently in the third week. One of our cases vomited from the time it was first given water on the day of its birth, and the latest developing it was six weeks. At first there is nothing characteristic about the vomiting; it is not frequent or violent, but, depending on the severity of individual case, it soon loses its character of the simple regurgitation of the average baby and becomes more propulsive. I have seen such a baby lying on its side project its vomitus a distance of three feet. The infant is usually hungry, uttering a whining cry and greedily suckling anything offered it; often vomiting while in the act of nursing, but returning at once to the bottle or breast.

Soon mucus, often in quantity, is contained in the vomitus. Heavy mucus often obstructs the tube in stomach washing, even when food residue is not present to clog it. We have never observed the presence of bile, though

stated by some to be a rare occurrence. Blood is frequently present. The odor changes from the usual sour to a rancid one from the presence of decomposition products. While admixtures of several feedings, even those of the previous day, may be found in the stomach contents, I do not believe a large quantity accumulates. A stomach of musculature sufficient to produce the powerful peristaltic waves usually observed, seems able to throw off excessive quantity through one or other of its two openings. Though cumulative vomiting is spoken of as a classical symptom, it does not occur comparably to that of adult with obstruction at the pylorus.

Next to vomiting, one of the earliest effects of the stenosis is retention of food products. The baby may vomit food hours after a feeding; and in washing the stomach, milk and curds are often recovered four hours after a feeding. In a case that came to post-mortem at the Children's Hospital some years ago, a large, round curd, as large as the end of the forefinger and dense as cheese, was found in the antrum pyloric, acting as a ball-valve, still further obstructing the already stenosed pylorus. No food had been given for a week that could have produced such a mass, so that this residue must have been present for that period or longer.

Other symptoms referable to the vomiting are loss of weight, constipation, and scanty urine. Depending on the degree of stenosis, the baby gains very slowly, is at a standstill, or, in worst cases, may lose eight ounces a day.

In a typical case of Group 2, the baby is a picture of marasmus; cheeks thin, face pointed, ribs prominent, limbs skinny, and skin loose. The stools are small and hard, often going several days without a movement. If purgatives are depended on, it often takes enormous doses to produce results. At other times several small green mucus stools, containing little fecal matter, are passed daily. One case for twenty-four hours before operation passed several such stools without fecal odor. The urine is scanty and dark in color.

In a case of some weeks standing, the abdomen has been compared in shape to that of a greyhound; the upper half standing out prominently, the lower half narrow and flat. After feeding, the outline of the stomach is prominent and often reaches to the umbilicus, or lower, accentuating the thinness of the

flanks; and is palpable as a more or less firm mass. At this stage, or sooner, when apparently the stomach wall has hypertrophied and the abdominal wall thinned, peristaltic waves appear. These are generally considered the pathognomonic sign of pyloric obstruction, though observed frequently by the writer in one case under observation for several months and showing no other symptom of the condition.

These waves are not to be confused with waves appearing in the small and large intestines in other conditions, as Hirschsprung's disease. They are oftenest seen fifteen minutes after feeding. They begin at the margin of the ribs to the left of the midline and pass obliquely across to abdomen and downward, becoming lost in the right side, often going well into the right flank. In some well-developed cases, three such waves one-half to one inch in height are visible at one time. In others, in which the stomach is not so large, a firm eminence gradually appears and disappears at left, without visibly passing across the stomach. In one case, to be referred to in another connection, this eminence appeared in the midline just below the ensiform cartilage. That the powerful muscular contractions to be inferred from these waves, do not at once empty the stomach by emesis, is probably due to a cardiac-spasm at the same time.

While the stomach is not always enlarged, several of our cases on the contrary being smaller than normal, its size is often astonishing. As already stated, it often extends below the umbilicus. In one case, in a baby six weeks old, an inexperienced nurse in washing its stomach, poured in eight ounces of water without eliciting any evidence of discomfort.

Pain is not a usual symptom. Such babies cry a great deal, but it is usually a fretful, hungry cry. At times, however, some cases exhibit evidence of severe pain. This experience is not confined to any one group. It may occur in hypertrophied pylori, in spasm of an anatomically normal pylorus, or in a muscular spasm of the entire organ, probably involving the cardiac sphincter, as well as the pylorus and stomach wall. As an example of the latter condition, see the following case.

Baby X, referred to Dr. E. W. Saunders, with history of vomiting breast milk and artificial food, at intervals crying as if in severe pain, with slight, if any, gain in weight. On examination, gastric peristaltic waves and

other evidence to justify diagnosis of pyloric obstruction were found. Gastric lavage and gavage at three-hour intervals was instituted at once, during following week; feeding was retained better than for some weeks, according to the mother; and slight gain in weight. But almost daily during this period, he had severe crying spells, such, his mother stated, as he had had at home. These spells came on shortly after a feeding. He screamed with a shrill, loud cry, his muscles rigid, his face flushed, showing every evidence he could of severe pain. During the last attack he developed a general convulsion. On these occasions he did not vomit. During attacks his abdomen presented a condition seen at no other time. No waves were visible, but in midline, below ensiform, was a round eminence, which remained in view longer than waves usually do, lasting one hour at time of convulsion, and on palpation was hard as a contracted uterus. In view of the danger of return convulsions, operation was performed, although lavage and gavage was meeting expectations in markedly decreasing the vomiting. On operation, a typical hypertrophied pylorus and a rather small stomach was found.

Other cases of hypertrophy coming to operation have shown little evidence of pain.

It is stated that pain is a symptom of pyloric spasm. That this is not always true, see case of baby N. B., already cited. This, on operation, proved to be a case of severe stenosis due entirely to pyloric spasm. But during the several weeks this baby was under treatment in hospital, he showed no such paroxysm as above described, while peristaltic waves were noted daily. These two cases again show the difficulty of differentiating hypertrophy of the pylorus from spasm. In view of the reported finding of hypertrophied pylori in post-mortems on individuals dying of other conditions, it would seem to suggest the possibility that pyloric spasm is the condition most to be feared, and that hypertrophy is dangerous only when associated with spasm.

That pyloric spasm is dangerous and can cause death, see following:

Dr. Saunders called in consultation to see baby ten days old. No vomiting; found baby weak and exhausted, but screaming as if in severe pain. Was told it had done so continuously for past twenty-four hours. Had taken no food during that time. Stomach was promi-

nent, large and firmly contracted. General convulsions developed during examination. Morphine and chloroform given; stomach tube passed, relieving pressure of gas and mucus. Post-mortem was not obtained, but with emptied stomach and relaxation after death, making deep palpation possible, no pyloric tumor could be felt. The conclusion was reached that the case was one of pyloric spasm.

Palpation of the pylorus is demanded by some to exclude spasm. This is possible in only a small per cent of cases, proving subsequently to be true hypertrophy. Those in which it can be done are usually of Group 1, in which the onset of symptoms are early and severe and the pylorus is accessible before the stomach has enlarged sufficiently to obscure it. The pylorus and ascending duodenum are quite firmly anchored and are not subject to displacement with enlargement of the stomach taking place in these cases. Typical peristaltic waves seen in the average case, pass further to the right than the site of the pylorus, and in extreme case with marked enlargement, go well over to the right flank. This enlargement of the stomach seems to affect the anterior wall more than the posterior. Dr. Shoemaker, professor of anatomy in St. Louis University, is my authority for the statement that the attachment of the greater omentum is on a line slightly anterior to the lower border of the greater curvature. There are two specimens preserved at Bethesda Hospital, which, when incised longitudinally on this line and flattened out, the anterior part is found one-fifth to one-third larger than the posterior. Such a change in contour produces, when the organ is distended, other curves, so that these stomachs present an anterior greater curvature and a posterior lesser curvature, in addition to its normal lines, thus doubling on itself, until the pylorus is covered by the pyloric end. To palpate a pylorus in such a case would necessitate pressure through the stomach and its contents, as well as the abdominal wall. Anticipating this condition, the writer has verified it in one post-mortem, by opening the abdominal cavity widely so that the organ could be viewed in situ, and the stomach was found overlapping the pylorus well to the right. Another specimen at Bethesda Hospital still maintains this shape of double curves, having been hardened in preserving fluid. Those pylori that can be felt are usually best reached by plac-

ing the finger to the outer side of the right rectus muscle and pressing upward, inward and backward, when a small, hard wave corresponding in position to that of the pylorus is felt.

Temperature and pulse are not affected in the average case, unless approaching starvation, when the temperature is often subnormal and the pulse rapid and weak. Rarely the temperature is slightly elevated, and at such times the baby is prone to convulsions.

Prognosis, with expectant treatment, depends entirely on the severity of the individual case. Many mild cases have undoubtedly recovered spontaneously without the true cause of the vomiting ever being suspected, while those presenting almost or complete obstruction can only live by the aid of surgical interference. Of the intermediate group, the majority can be saved by exclusive tube feeding.

PATHOLOGY.

The stomach, as previously stated, is, in the hypertrophied form, usually much larger than normal, and the wall thickened throughout, especially toward the pylorus. The pylorus presents the greatest interest; instead of a slight thickening in the circumference of the wall at the junction of stomach and duodenum, we find a larger and longer mass, almost as hard as cartilage. It will often admit a small probe only by force. On longitudinal section, the mucous membrane is found thrown into folds by the constriction of the greatly thickened pyloric muscle, which encroaches on the lumen, not producing much enlargement externally. It projects into both the stomach and duodenum, like a cervix uteri. It often presents a curvature like that of the stomach, but in the opposite direction. Microscopically, the enlargement is found to be due mainly to an increase in the circular muscular fibres.

TREATMENT.

Drugs have a very small place in the treatment of this disease. Bromids, atropin and opiates have been recommended and may be of benefit in mild cases, but have certain objections. The treatment, as considered here, is exclusive tube feeding and surgical operation. Some cases, as stated before, will recover with little care. Most cases will show a temporary improvement on almost any change of food, provided it is not one which gives rise to dense curds in the process of gastric

digestion. Breast milk, peptonized milk and condensed milk will pass through the constricted pylorus more readily than raw milk. But the average case needs more energetic treatment.

Through my hospital connections, I have for some years had opportunities to study the cases of pyloric obstruction coming into the hands of Drs. Saunders, Zahorsky and others; and, while I fear we have lost valuable time in delaying operation in some cases, I am sure we have obviated the necessity for this dangerous procedure in others.

I am convinced that no one is justified in stating on one examination, that any individual case is, or is not, a candidate for operation. Dr. Saunders, whose cases and experience I have drawn on largely in these pages, has adopted the plan of trying lavage and gavage for at least several feedings in even the worst cases, before recommending operation. If after a few such feedings there is no improvement in the general condition, as manifested by greater activity on the part of the child, and a better stool and abundant urine, he submits the baby to operation. Even in very doubtful cases when death from starvation is imminent, it is well to give the stomach tube a trial, since vomiting is always less when fed through the tube and every drop of fluid absorbed gives a more favorable outlook for the operation.

In 1907 Dr. E. W. Saunders of St. Louis first suggested, in a report of several cases so treated, the use of lavage and gavage in these cases. While washing the stomach once or twice daily had been proposed before, he went further and demanded that the child be allowed to swallow nothing, not even to suckle, but be exclusively tube-fed after having the stomach washed. He reasoned that while, as the physiologists tell us, the act of deglutition causes a reflex closure of the pylorus, experience serves to show that the passage of the tube over the fauces and down the esophagus has the opposite effect.

We do not claim for this treatment that it will cure all cases, but even in those not amenable to it, it will enable us more quickly to determine that the pylorus is one that will not relax sufficiently to admit food enough to maintain life. A soft rubber catheter, size 12 or 14 A., makes a very satisfactory stomach tube. Since the residual curds and tough mucus often obstruct it, it is well to cut another opening opposite the eye; and also mark

a line at six or seven inches from the eye if not already graduated. The baby's arms are fastened by wrapping its body in a large diaper. It is laid across the nurse's lap, face upward. The tube is passed backward against the pharynx. The fingers of the nurse need not enter the mouth. When the first resistance is overcome, pass the tube rapidly until the seven-inch mark is at the lips (this is well within the stomach of a three-month-old or younger), or until a gush of gas is heard. Now, lower the tube.

PYLORIC STENOSIS.

Edwin H., three months old. Mother reports that he began vomiting when two weeks old. Was treated by doctor and fed various foods. Did not gain. Finally vomited after each feeding, but did not recall that ever vomited more than bulk of one feeding at a time. It is ill-nourished, very fretful and constipated.

February 3. Lavaged, obtaining large quantity of tenacious mucus.

February 5. Lavaged, obtaining mucus and part of feeding given several hours previously. Ordered lavage and gavage.

February 6. Has not vomited since beginning gavage, but part of each feeding of whey and condensed milk is recovered when stomach is lavaged three hours later.

February 7. Observed marked peristalsis in stomach after feeding. Stomach not much larger than normal. Diagnosis of pyloric stenosis made on strength of retention of food, peristalsis and history.

Ordered lavage followed by gavage every four hours, with record of food recovered and vomited.

Vomiting ceased almost entirely, but part recovered with each washing and he began a rapid gain.

In an effort to determine whether the washing alone would account for this improvement, he was given a bottle to nurse after washing stomach, during an interval of three days from February 12 to 15, when, as shown by chart, the vomiting was markedly increased and no gain in weight was made.

The latter part of the chart is apparently inconclusive, as the amount vomited seems increased. This may be due to giving too much at a feeding, as the amount per day was increased, as seen by the chart. The daily record shows that a large part of this was vomited while the tube was in stomach, or while withdrawing it, a change of nurse having been made at this time, and one who apparently placed a higher estimate on the amount vomited.

The patient was dismissed March 24. Seen one week later, the mother reported had not vomited at all.

Last seen July 17. In perfect condition, growing rapidly and not vomiting any.

Often a quantity of food and mucus will flow out. Next, through a small funnel already attached to the free end of the tube, pour into the stomach several ounces of a 3 to 5 per cent solution of sodium bicarbonate. As the last of the fluid disappears, lower the tube again to siphon it out. Repeat this until the fluid returns clear and most or all of it is recovered. Then pour in the food, pinch, and rapidly withdraw the tube. Pin the baby's wristband to his diaper to prevent finger sucking and lay him on his right side with the head elevated. This is repeated every three to four hours. Preferably, breast milk is used; if not obtainable, give peptonized milk, made of equal

parts milk and water and peptonized for sixty minutes, or whey for short period.

This is a simple procedure and easily carried out. While gastro-enterostomy cannot be performed by every doctor, this treatment has been carried out successfully over an extended period by at least three mothers, without any previous experience. The following is a typical case in detail of average severity cured by gavage.

While this case had the usual gastritis, as evidenced by the quantity of mucus recovered in washing stomach, the benefit derived from the treatment was not due to the washing, as shown by the chart for February 12 to 16. This period, when stomach was washed as usual, but food was given by bottle, is the only time he failed to gain in weight, and the only time vomiting was a feature while under treatment.

As another example that gavage and not lavage is due the credit, note the following brief history of Herbert W., age two and one-half months: Weight, eleven pounds. Mother had nursed two previous babies. Had milk for this one. Appeared normal until eleven days old, when vomiting began. Following two months was treated by a physician who, after a varied medication, took it from breast and tried various modified milks and proprietary foods unsuccessfully. Baby continued to vomit after nearly every feeding and to lose in weight, and was extremely constipated. Baby seen November 19. Large frame, but emaciated, weighing seven and one-half pounds, a loss of three and one-half pounds since birth; hungry, fretful cry; vomited violently while nursing bottle, but without evidence of pain. Stomach large, extending to just below the umbilicus. Lower abdomen flat. Marked peristaltic waves over stomach. Several ounces of mucus and curds recovered on passing stomach tube. At once began lavage and gavage every three hours; at first giving undiluted fat free milk peptonized forty minutes, which treatment was continued for two months and gradually discontinued during the third month, with an earlier addition of cream and dilution of the milk. At once the vomiting became less frequent, baby better satisfied and began gaining in weight. The first week gaining six ounces, second week ten ounces, an average of eight ounces a week for the two months on gavage. He was dismissed at end of third month. Has had no trouble referable to his pylorus since. That his early experience did not handicap him, is shown by his weight when one year old, namely, twenty-nine pounds. As little mucus was recovered after the first few days, lavage was discontinued and he was simply gaviged with the result above stated.

Reverting to the argument that gavage is responsible for the rapid improvement in the above cases. Expectant treatment with different foods alone could not have produced such a sudden cessation in vomiting and gain in weight, in view of their previous experience with numerous foods.

While the symptoms of pyloric obstruction were typical, the pathology of the pylori in the above cases and numerous others, recovering under this treatment, is unknown. But the following is one of true hypertrophy of the pylorus:

Priscilla W., "bottle baby." Diagnosed as pyloric obstruction when three weeks old. Gaviged for five weeks, gradually discontinued for two weeks longer. Gained two and three-quarter pounds and ceased vomiting. One month after cessation of treatment, during which period she showed no symptom of pyloric obstruction, she died of acute enteritis. At post-mortem her pylorus presented the usual appearance of the congenital hypertrophic pyloric stenosis, though she had made a symptomatic recovery.

Date	24-hr. Feedings	Food Recovered	Vomit	Wght. of Baby	
Feb. 6.....	23½ ozs.	4½ ozs.	A little once	9 lbs., 1½ ozs.	
Feb. 7.....	24 ozs.	5 ozs.	A little twice		
Feb. 8.....	21 ozs.	4½ ozs.	A little once		
Feb. 9.....	24 ozs.	5 ozs.	None	9 lbs., 8½ ozs.	
Feb. 10.....	28 ozs.	4 ozs.	None		
Feb. 11.....	24 ozs.	4½ ozs.	Once		
Feb. 12.....	20 ozs.	3 ozs.	Four times	9 lbs., 12½ ozs.	
Feb. 13.....	23½ ozs.	3½ ozs.	Once		} Given bottle to nurse after each lavage
Feb. 14.....	30 ozs.	3 ozs.	Three times		
Feb. 15.....	30 ozs.	3 ozs.	Frequently and large amount	9 lbs., 12¼ ozs.	
Feb. 16.....	30 ozs.	6¼ ozs.	None		
Feb. 17.....	30 ozs.	8 ozs.	None		
Feb. 18.....	30 ozs.	4 ozs.	About 1½ ozs.		
Feb. 19.....	30 ozs.	5 ozs.	None	10 lbs., 5½ ozs.	
Feb. 20.....	25 ozs.	8 ozs.	Once		
Feb. 21.....	30 ozs.	4 ozs.	Once		
Feb. 22.....	30 ozs.	7 ozs.	None	10 lbs., 6 ozs.	
Feb. 23.....	30 ozs.	4½ ozs.	About 4 ozs.		
Feb. 24.....	30 ozs.	8½ ozs.	Twice	10 lbs., 7½ ozs.	Nursed one bottle
Feb. 25.....	30 ozs.	5 ozs.	None		
Feb. 26.....	35 ozs.	8 ozs.	Once	10 lbs., 2¼ ozs.	Nursed one bottle
Feb. 27.....	35 ozs.	11½ ozs.	None	10 lbs., 4 ozs.	} Was having frequent green stools
Feb. 28.....	30 ozs.	6 ozs.	Twice		
Mch. 1.....	30 ozs.	4½ ozs.	Half oz.	10 lbs., 5¼ ozs.	
Mch. 2.....	30 ozs.	5 ozs.	Once		
Mch. 3.....	30 ozs.	7 ozs.	Half oz.		
Mch. 4.....	30 ozs.	7 ozs.	None		} Nursed bottle twice daily
Mch. 5.....	33 ozs.	4 ozs.	Half oz.	10 lbs., 13 ozs.	
Mch. 6.....	36 ozs.	8 ozs.	2 ozs.	11 lbs., ½ oz.	
Mch. 7.....	32 ozs.	6 ozs.	2 ozs.		
Mch. 8.....	40 ozs.	10 ozs.	9 ozs.		
Mch. 9.....	36 ozs.	6 ozs.	None		
Mch. 10.....	34 ozs.	10 ozs.	Half oz.	10 lbs., 8 ozs.	
Mch. 11.....	36 ozs.	12 ozs.	None		
Mch. 12.....	36 ozs.	2½ ozs.	3 ozs.	10 lbs., 9 ozs.	
Mch. 13.....	36 ozs.	4 ozs.	1 oz.		
Mch. 14.....	30 ozs.	5 ozs.	None		} Feedings of whey and rice water
Mch. 15.....	36 ozs.	None	Once	11 lbs.	
Mch. 16.....	36 ozs.	2 ozs.	¼ oz.		
Mch. 17.....	36 ozs.	1 oz.	None	11 lbs., 5 ozs.	
Mch. 18.....	36 ozs.	3½ ozs.	1 oz.		
Mch. 19.....	36 ozs.	2 ozs.	2 ozs.		} Nursed bottle three times a day
Mch. 20.....	36 ozs.	4½ ozs.	1 oz.		
Mch. 21.....	34 ozs.	1 oz.	7 ozs.		Lavaged and gavaged two times a day
Mch. 22.....	35 ozs.	1 oz.	Half oz.	11 lbs., 7 ozs.	Discontinued lavage and gavage
Mch. 24.....				11 lbs., 8 ozs.	

The following is an example of prompt results in a mild case, but one presenting classical symptoms:

Dorothy H. Began vomiting when three days old. During following eleven weeks vomiting continued with various foods, and she lost one pound, six ounces in weight. When seen, peristaltic waves were visible. Gavaged four days, then bottle feeding gradually begun. During first six days she gained eight ounces and the nurse stated that vomiting did not occur once. From this time accurate weight record was not kept, but she continued to thrive, and the mother reports that vomiting did not return.

The following two cases are interesting, in that while they presented some of the cardinal symptoms of pyloric obstruction, vomiting was totally absent in one and a rare occurrence in the other, while pain was a marked feature in both:

Baby H., "bottle baby." From birth cried almost continually at night and a great part of the day. No improvement on various foods tried. Never vom-

vited; lost little in weight. Peristaltic waves appeared in fourth week. Began gavage, finding quantity of tough mucus in stomach. Gradual improvement, with less crying and gain in weight, followed.

Baby Charles M., four months old. Had cried as if in pain every night. About once in three weeks, during such a spell, vomited a large quantity, consisting of hard, sour-smelling curds and mucus and sometimes bile. Had gained in weight slowly. Was a large, well-nourished baby with good abdominal wall, but nevertheless peristaltic waves were seen after feeding. On gavage this night crying ceased almost at once.

Rectal feeding, while recommended in pyloric obstruction, is very unsatisfactory, as it usually is in other conditions in infants. If a few ounces only are given, they may retain it the first time or two. The drop method of proctolysis is too slow. If practiced at all, it must be done faster than in the adult, as the presence of the tube itself in the rectum too long will cause expulsion. But after a few times the bowel becomes intolerant and expels the fluid as soon as it is inserted.

Since 1896, stomach washing has been a frequent practice at Bethesda Foundling Home. Indications for its use are so numerous and the results are so satisfactory that every nurse becomes an expert in the use of the tube.

In gastric catarrh of infants, which so closely simulates pyloric obstruction as often to be mistaken for the latter in its early stages, lavage is a specific. This condition usually occurs in babies older than those affected by pyloric obstruction. The baby is pale and fretful, has poor appetite, and is losing weight. He vomits frequently. The vomitus containing mucus. The entire abdomen is flat. Stomach is not prominent as in pyloric obstruction, and no peristaltic waves are present. Two or three stomach washings often work a wonderful transformation in such a baby. When lavage is practiced on a baby, we always select a feeding hour and complete the operation by gavage.

Institution babies and less often others are prone to lose their appetite for a time without apparent cause, sometimes for days or weeks taking only a part of their assigned food, or refusing the bottle outright. If these babies are gavaged, even with the same food, for a few feedings, they regain their desire for food very promptly. In acute illnesses of various kinds we often find tube-feeding a valuable help.

The passage of the tube on a baby rarely causes pain; at first they struggle and cry

just as they do when a tongue depressor is used. When gavaged for any length of time, they not only become used to it, but, apparently realizing that their hunger is satisfied through it, they look for it eagerly and submit without a struggle.

SURGICAL TREATMENT.

The operation of choice is posterior gastroenterostomy, and figures of very low mortality are given by some surgeons. While this is a severe operation and is often necessarily performed on a baby in a very low state, in many cases it is the only hope of saving life. However expert in this operation on the adult, a surgeon is not justified in attempting it on a young baby before at least performing it on the infant cadaver. The tissues are unbelievably friable and the lumen of the collapsed intestine so small that danger of kinking is great.

Feeding after operation is a big problem. Often the shock is so great that the baby will not nurse for days, and resort is had to the tube again. As a rule, water is given two to four hours after operation, and, depending on the amount taken, is repeated every two hours. On the next day breast milk or peptonized milk is given every two or three hours, through the tube if necessary, alternating with water. At this time rectal feeding may again be attempted, especially if morphin has already been given for pain. The sudden access of food to the previously empty intestine often produces a form of diarrhea which demands excessive care and watching.

As example of the severe type of case and one apparently hopeless, that was relieved by operation, see the following:

Baby P., a premature twin, began severe vomiting when one month old. Symptoms extreme from beginning; constipation almost complete. Gastroenterostomy performed by Dr. Roland Hill three days after severe vomiting began. At this time had lost more than previously gained, weighing only thirty-one pounds, fifteen ounces. For hours before operation radial pulse could not be felt. Immediately following operation he had several convulsions, but made a complete recovery. Lavage and gavage were tried on this baby, but without success. The vomiting was markedly lessened, but most of the food was recovered when tube was inserted for next feeding.

IN CONCLUSION.

If I have not persuaded you to try lavage and gavage on any case of vomiting from pyloric or gastric cause, it is not from lack of evidence of its efficacy, but in the way I have presented the matter.

PREVENTIVE MEDICINE.*

By A. E. Turrentine, M. D.,
Blytheville.

Only during the last decade has much thought and labor been given to this all-important subject; therefore, it is only in its incipieney. It is very amusing to read medical books printed in the early part of the nineteenth century and see how enthusiastic they were over prospective drug cures for almost every disease and how little space was given to the causative factors. It would have been sufficient proof of one's insanity to have predicted in 1816 that one century hence we will not have a cure for rheumatism, pneumonia, typhoid fever and many other diseases, yet pneumonia today runs its course of about seven days, typhoid fever four weeks, and rheumatism forever.

Therapeutics probably received much greater share of study then than now, especially as to drugs. Today we are putting forth our greatest efforts to prevent the spread of diseases, the cause of which we well know, and to ascertain the causes of others. It seems a slow progress when we sum up and see that in the seventeenth century we discovered cinchona; in the eighteenth century, smallpox vaccine; the nineteenth century gave us antitoxins, and the twentieth century has forced us to accept typhoid vaccine. Thus we find that four hundred years' labor have given us four specifics and only one of them a drug. Another drug that has long been heralded as a specific, namely, mercury, for syphilis, has been relegated to the adjunct class. We are now forced to abandon a great amount of the hope we once held for curing diseases and are putting forth the greatest part of our energies to prevention. This has been done largely by individuals for the most part—many without remuneration and others very poorly paid health officers.

We now can see in no great distant future when we shall have in our President's Cabinet

another member who will be the most important of all who will be at the head of the health department. Then we will be given figures to show how much life and money is lost by preventable diseases and begin to wake up and put a stop to the greater part of them. Our government is now paying a part of the salary of our instructor on agriculture, including the health of our live stock. Imagine the good that could be done by a properly trained, full-time instructors on health matters, who would go from house to house and in a tactful way explain to our people how to live so as to avoid diseases and how to feed their babies to grow them up into better men and women.

We are now burdened with taxation and still trying to devise means with which to build hard roads. If all of our present knowledge on prevention were put into practice we would save a sufficient amount of money that is now being spent for drug and doctor bills, counting the loss of time to the patients sick with preventable diseases, to build a hard road on every section line. Nearly three hundred years have passed since we learned that quinin was a specific for malaria, yet even our most enlightened people go on suffering with the disease and causing the spread of it to others.

It has only been a short while since when a community was visited by an epidemic of smallpox or yellow fever, that there were barely enough people left to bury the dead, and today an outbreak would cause no great alarm, for the authorities would soon have it under control. The two greatest curses to our present generation are malaria and tuberculosis, both preventable and well understood, yet it seems that we have a greater tolerance for them in a social way than most any other diseases. If your best friend today were to knock at your door and you knew that he had smallpox, you would insult him rather than allow him to enter your home, yet you will invite a friend known to be harboring malaria to spend the night and use no great precautions to keep your *lady anopheles* from his bed chamber, and I dare say a very few would offer objections to a tuberculous friend spending the evening at their fireside with your family and would probably give him a drink from the family drinking cup. We have always welcomed our consumptives who have become unable to follow their usual avocations, to come about us and rest in the most public places, coughing and expectorating

*Read before Mississippi County Medical Society, January 11, 1916.

promiscuously. If we ship a corpse in a baggage car today we must procure a certificate from the attending physician stating that the person did not die from a communicable disease, yet our consumptives ride at will with the general public on our trains with no restrictions, except the little sign "No Spitting on the Floor;" and I will offer a reward for the name of a person who has ever been fined for its violation.

A great movement is now on to have each year a children's week, given up for child's betterment. A week is better than a children's day, and the time will soon come when we will have fifty-two children's weeks every year. We have entirely too little instruction on hygiene in our schools. While spending large sums of money to train their minds, we pay little heed to the condition of their bodies and turn them out with little knowledge as to the care of their health.

Slowly, but gradually, we are getting away from our old idea of liberty, and see that instead of the nation belonging to us, we belong to the nation, with a duty not only to care for our own health, but not to jeopardize the health of others.

THE PREVENTION OF PELLAGRA.

In order that a suitable modification in the diet of the population chiefly affected may be brought about, Dr. Joseph Goldberger, U. S. Public Health Service, recommends:

1. An increase in the diet of fresh animal and leguminous foods, particularly during the late winter and spring.
 - a. Ownership of a milch cow and increase in milk production for home consumption.
 - b. Poultry and egg raising for home consumption.
 - c. Stock raising.
 - d. Diversification and the cultivation of food crops (including an adequate pea patch) in order to minimize the disastrous economic effects of a crop failure and to make food cheaper and more readily available.
 - e. Making these foods as accessible as possible in the more or less isolated industrial communities by providing markets, particularly butcher shops, throughout the year.
2. A reduction in the diet of the carbohydrate (starchy) foods.

- a. Improve economic conditions; increase wages, reduce unemployment.
- b. Make the other class of foods cheap and readily accessible.

IMPENDING DEATH.

The signs and symptoms of impending death, understanding by impending inevitable or probable death within two days, are given by T. F. Reilly, New York (Journal A. M. A., January 15, 1916). It is important to be able to judge when a patient will pass away, and inability to do this may be a serious deficiency. In New York no patient can be transferred from one hospital to another who is likely to die within forty-eight hours, and the visiting physician who signs such a transfer commits a misdemeanor and is liable to fine. For that reason, in many hospitals patients are kept for weeks and months because there are signs indicating possible death within forty-eight hours. The article does not lend itself well to abstracting and only some of the more important symptoms mentioned can be noted. The pulse has always been considered the most reliable single indicator of approaching death, but it is uncertain. Except in heart block, a pulse under 80 in the very sick adult means that death is probably at least not more than twelve hours off. This is not true of the aged, who frequently have slow pulse up to the moment of death, but on the other hand a pulse of 140 in these old persons means death within a few hours. Cases of auricular flutter are very deceptive, and gallop rhythm, not associated with rheumatic carditis, is a fatal sign. The so-called death rattle in respiration is also a fatal sign. Blood pressure is not a very reliable indication. The eye signs are next in value from a prognostic standpoint, and the facies described by Hippocrates is as awesome as it was twenty-five hundred years ago. In any disease the presentiment of a fatal issue by the patient at the onset is a bad sign, especially if there is no severe pain. Picking at the bed clothes, except in typhoid fever, is a grave symptom. The author ends by saying that there is no "no" or "never" in medicine, but occasionally a patient will present one or many of the signs he mentions as indicative of approaching dissolution and yet will recover, but these occasional exceptions are few, and in the main the elaborate summary he gives of the symptoms of approaching death is true for the average case.

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ANONYMOUS COMMUNICATIONS.

Anonymous communications will not appear in the columns of this Journal, no matter how meritorious they may be.

Editorials.

THE MAY MEETING.

The fortieth annual meeting of the Arkansas Medical Society will be held in Texarkana, May 2-3-4. The Miller County Medical Society and the Texarkana Board of Trade assure us of a cordial welcome, and that nothing has been left undone to make the meeting a success from every possible viewpoint. It will occur to our members that in recognition of this proffered hospitality, each one of us owes it to the people of Texarkana and the Miller County Medical Society to attend the meeting. Texarkana, through the Board of Trade, supplemented the efforts of the County Society to secure the convention, and the least we can do is to show our appreciation by sending a large delegation from all over the state.

The Committee on Scientific Work is busy preparing such a program as will not only prove attractive, but will insure attendance being an absolute benefit to all. It will be impossible for the committee to see every member in reference to preparing papers. On the other hand, it will be impossible to accept more than thirty-five papers. A long-drawn-out program becomes tedious. Quality is the desideratum rather than quantity. We have physicians in Arkansas the peers of any in

the United States. We want good papers that will interest and instruct. If anyone wishes to contribute a paper, he is requested to get in touch at the earliest possible date with the committee, as it is important that the complete program be arranged as soon as possible.

THE COMMITTEES.

Committee on Scientific Program—Wm. R. Bathurst, chairman, Little Rock; Frank Vinsonhaler, Little Rock; C. P. Meriwether, Little Rock (ex-officio).

Committee on Medical Legislation—Morgan Smith, chairman, Little Rock; Anderson Watkins, Little Rock; William Breathwit, Pine Bluff; J. C. Wallis, Arkadelphia (ex-officio); C. P. Meriwether, Little Rock (ex-officio).

Committee on Board of Visitors to the Medical Department of the University of Arkansas—H. N. Dickson, chairman, Paragould; N. R. Townsend, Arkadelphia; T. J. Stout, Brinkley.

Committee on Necrology—R. H. T. Mann, chairman, Texarkana; M. Fink, Helena; J. B. Roe, Newark.

Committee on Trained Nurses—J. G. Eberle, chairman, Fort Smith; J. D. Southard, Fort Smith; C. M. Lutterloh, Jonesboro.

Committee on Health and Public Instruction—F. B. Young, chairman, Little Rock; John Stewart, Booneville; St. Cloud Cooper, Fort Smith.

Committee on Sanitation and Public Hygiene—C. W. Garrison, chairman, Little Rock; H. Thibault, Scott; T. M. Fly, Little Rock.

Committee on Cancer Research—M. D. Ogden, chairman, Little Rock; H. H. Kirby, Little Rock; W. A. Snodgrass, Little Rock.

Committee on Memorial Tablet in Memory of the Late Dr. John S. Shibley—L. P. Gibson, chairman, Little Rock; J. G. Eberle, Fort Smith; A. E. Hardin, Fort Smith; Frank Vinsonhaler, Little Rock; M. D. Ogden, Little Rock.

GET BUSY NOW.

The Arkansas legislature will meet next January.

Now, don't pass this up with the idea that January is a long way off. It is not far distant for the purposes for which this is written. The State Medical Society desires certain legislation. Will you say, "Well, there is a Legislative Committee to attend to that."

This is the mistake, and may be one reason why the legislature is so indifferent to the legitimate demands made for adequate appropriations for the State Board of Health and other matters concerning the public health. The Legislative Committee does what it can, but it can only appear before the committee having certain appropriation bills in charge and give reasons for their passage. It is impossible to work on individual members to gain their support for such needed measures. And it is not enough to get a favorable report, because the committee may be turned down in the House or Senate—or both.

What the State Medical Society asks for is for the public good. There is no lurking suspicion or self-interest behind health measures. Arkansas is behind nearly all her sister states in this regard. The session before the last authorized a State Board of Health and then made no provision for its support, not even to the extent of furnishing postage stamps, much less for the expense of taking steps to check epidemics. The state has no State Hospital for poor sick, injured or deformed. It is a disgrace to the state that there should be an entire lack of facilities for taking care of the pauper sick. There should be means for combatting outbreaks of contagious diseases. There should be an adequate appropriation for the inspecting of hotels and restaurants to see that the laws are observed. There are other matters of equal importance to the public welfare that need attention. For the investigation of the hookworm disease, the only provision is by the charity of the Rockefeller Commission.

Legislators and candidates for the legislature must be educated to a proper understanding of the paramount importance of health legislation now—not after the legislature is in session. Then it is too late. They must come to the legislature already imbued with the right ideas. It is not too much to say that no other matter is so important as health legislation. It is a valuable asset to the state. An unhealthy community will in vain invite the immigrant. The first question that is asked by a prospective settler is in regard to the healthfulness of the state to which he may desire to move. Arkansas needs capital from the outside to develop her lavish natural resources. Legislators must have these matters presented to them forcibly. The various county societies can do a great work in this

respect, not only as societies, but by individual missionary work. The press of the state will gladly co-operate, as it always does in every good work for the public welfare. Prepare papers to be read at your county meetings and have your local papers publish them. Talk to your legislators and your candidates for the legislature, and if this work is systematically done it will be less like pulling eye teeth to get action when the legislature assembles.

Abstracts.

EPILEPSY.

In the second paper on constipation as a cause of epilepsy, Charles A. L. Reed, Cincinnati (Journal A. M. A., January 29, 1916), deals with the methods of diagnosis and the connection of cause and effect between the constipation and the epilepsy, and endeavors to determine, if possible, the certain pathologic constants of the disease and indicate the logical basis for treatment. His case records now number over 700 and are uniformly of one class, that indicated under the old title of "idiopathic epilepsy." He asks for aid from those who have opportunities for observing large numbers of cases in determining the constancy or inconstancy of the conditions which he describes. After noticing the various types of conditions that have been included under the general terms epilepsy or the epileptic equivalent, etc., he gives his methods of examination of cases. Heredity, he thinks, can be disregarded as a cause. The general nutrition is usually fair to good, the appetite usually excessive, the temperature often subnormal and the blood pressure low. The pulse rate generally corresponds with these in the absence of circulatory complications. The special physical exploration is carefully carried out to determine the possible existence of irritative foci in any organs. The first of the general functions looked to is the intestinal, and the patient generally volunteers the information that he is constipated, which is practically universal among epileptics, and the exceptions are more apparent than real. Constipation has generally existed for a long time, and physical examination of the abdomen usually indicates more or less displacement or ptosis, and in any event a strong presumptive diagnosis of fecal stasis due to mechanical conditions in the intestine may be based on

this examination when conducted by the one who has become familiar with the auscultatory and percussion sounds of the abdomen. This examination is not considered altogether specific, and Reed advises a further Roentgen exploration carefully interpreted by those who are competent. The clinical demonstrations thus establish the fact of distortion of the alimentary canal and retardation of the fecal current. The constipation necessarily implies that the watery element of the intestinal content has largely disappeared through the absorbents into the general circulation, carrying with it abnormal fermentative products and certain bacterial toxins. Probably the most important, because most toxic, single element is betaininazo, shown by Mutch to originate in the small intestine in cases of ileal stasis. The inevitable result of the toxemia is the chronic acidosis due to the diminution of the oxygen-carrying power of the blood, and this can be shown in the various secretions. It is aggravated by the excessive muscular activity of the seizures. Among its consequences are focalized edemas, especially, in Reed's opinion, affecting the brain. An epileptic seizure, according to him, is explained by the existence of an acidosis edema of the brain involving the conduction paths, and he holds that these account for the localization of symptoms in so-called partial epilepsies as well as in the grand mal seizures. The genesis of the toxin elements in the intestine has been variously explained as due to bacterial decomposition, putrefaction of ingesta, or both. Reed thinks that at least one source of the poison is to be found in bacterial activity in the intestines, and he refers to authorities, and also says that in every epileptic he has explored surgically, he has found enlarged retroperitoneal lymphatics, especially in connection with the cecum, in which several varieties of bacteria occurred, particularly a gas-forming bacillus resembling the Welch bacillus, which he regards as specially significant. Certain conditions in the brain and intestines are considered by Reed as purely secondary, such as the chronic duodenitis, the hardened areas in the brain, etc. Other authorities, whose views support his own more or less, are referred to, and he considers the following conclusions as justified: 1. Epilepsy is the result of an intoxication of the general system. 2. The intoxication is of intestinal origin, due to mechanical retardation of the fecal current. 3. The resulting clinical and

pathologic constants, in their sequent etiologic order, are (*a*) constipation, (*b*) hyperabsorption, (*c*) toxemia, (*d*) acidosis, (*e*) focalized edema with (*f*) consequent deinsulation of the conduction paths of the brain, and (*g*) the epileptic manifestations. 4. There is clinical and bacteriologic evidence suggestive of a special bacterial factor involved in the elaboration of the toxin and in causing the special focalization of the edema. 5. The facts thus elicited lay a logical foundation for treatment addressed specifically and successively to (*a*) careful constitutional preparation of the patient for operation, (*b*) the restoration of the normal fecal current by such operation as may be indicated in the individual case, (*c*) the post-operative neutralization of the previously established and yet persistent acidosis, (*d*) the dehydration of edematous centers and (*e*) possible immunization of the patient by autogenous vaccination—a course of treatment which, in its entirety, may require a period of from several months to a year or more. The comprehensive treatment will be the subject of his next article.

PLASTIC OPERATIONS OF THE FACE.

J. S. Horsley, Richmond, Va. (Journal A. M. A., February 5, 1916), says that plastic operations on the face are not usually life-saving, but curing facial deformity relieves the patient mentally and physically. Plastic operations require probably more skill than any other kind of surgery, and they especially require ingenuity to meet special conditions and make things fit. General considerations such as age and health of the patient must be given due weight. The age is of great importance, as flaps can be transplanted with a smaller amount of nourishment in the young than in the old. As to dressing, dusting the wound with boric acid powder and leaving it open is all that is necessary. If there is much oozing, a compress of dry gauze may be kept on for a few hours. If any of the facial cavities are involved, hexamethylenamin is given before and after operation to sterilize the secretions. While there are general principles in this work, each case is a law to itself and the greater part of his article is given to the methods which he has found necessary to employ in special cases, too detailed to be thoroughly abstracted. Deformities of the forehead, eyelids, nose, septum, etc., are described.

SELECTIVE SENSORY REGENERATION

I. H. Coriat, Boston (Journal A. M. A., February 5, 1916), gives a careful report of a case of ulnar nerve lesion in which the sensory symptoms were modified in a way which showed the independence of these nerve endings in the skin after complete severance and regeneration of the ulnar nerve. During the process of regeneration isolated pain points could be demonstrated in an otherwise completely anesthetic area, while inside this area they were so closely crowded together that they formed a zone of extreme hyperalgesia. Deep sensibility was intact. The condition proved that the specific receptors for pain were not only independent, but were also more capable of rapid regeneration than the specific receptors for touch, thus making the case of special interest. The conclusion is drawn of the independence of the nerve supply of the skin from specific afferent receptors. The specific nerve endings for touch entirely disappear. The condition, as he says, is best termed a selective sensory regeneration.

FOREIGN BODIES IN THE STOMACH.

D. C. Ralfour, Rochester, Minn. (Journal A. M. A., February 5, 1916), reports the case of an insane woman who apparently had a penchant for swallowing teaspoons. Her habit was discovered by the nurse, who caught her in the act. A roentgenogram revealed their presence in the stomach, where they seemed to cause no special inconvenience or interruption to health. A gastronomy, however, was considered advisable, and seven teaspoons, instead of the supposed three or four, were taken out of the stomach, where they had been arranged spoon fashion. The stomach was large and somewhat ptotic and its mucous membrane was somewhat thickened, but no evidence of injury was found. The spoons, which were of plated Utah metal, were somewhat larger than ordinary teaspoons, and showed no erosion. The patient made an uneventful recovery.

Rectal and sigmoidal cancers are too often treated for "dysentery." An examination of the lower bowel, important in *all* doubtful cases, should never be omitted in patients with mucous or bloody discharges. — American Journal of Surgery.

Personals and News Items.

Dr. D. T. Cheairs of Tillar is attending the medical clinics in New Orleans.

Dr. H. L. Routh of Batavia visited Dr. W. A. Snodgrass in Little Rock last month.

Dr. W. H. Toland of Nashville visited in Little Rock this month.

Dr. George Knapp of St. Louis visited Dr. Robert Caldwell of Little Rock last month.

Dr. J. H. Bell announces the completion of his new sanitarium at Arkadelphia.

Dr. H. H. Niehuss of El Dorado has been appointed health officer for Union County.

Dr. and Mrs. J. S. Rhinehart of Camden have returned from a visit in Louisiana.

Dr. L. E. Love of Dardanelle spent several days in Little Rock this month.

Dr. G. B. Whitehead has moved from Tomberlin to England.

Dr. Foster Jarrell of Huttig visited in New Orleans last month.

Dr. E. E. Wilson has moved from Route 1, Rhea, to Route 2, Summers.

Dr. Moeller of Hillsboro is attending the clinics in St. Louis.

Dr. C. P. Meriwether of Little Rock, secretary of the Arkansas Tubercular Sanatorium, visited in Booneville this month.

The United Charities of Little Rock report that over 700,000 Red Cross seals were sold in this state during the holidays.

Dr. W. H. Allen of Rich Hill, Mo., visited his brother, Dr. E. N. Allen of Little Rock, last month.

Dr. D. W. Pritchett of Barnesville, Ga., has located in Dardanelle and formed partnership with Dr. L. E. Love.

Dr. G. K. Stephens of Newport has returned from an extended trip in western Texas and Arizona.

Dr. J. B. Crawford of Benton and W. P. Custer of Boydsville visited in Little Rock this month.

Dr. R. L. Smith of Russellville was nominated mayor, February 8, in the primary election.

The State Board of Health report for the month of November, 1915, shows that 681 cases of malaria and fifty-two cases of pellagra were reported.

Dr. Frank B. Young, former superintendent of the State Hospital for Nervous Diseases, has opened offices in the Southern Trust Building, Little Rock.

Dr. H. H. Smiley of Texarkana has been appointed chief surgeon for the Cotton Belt System, succeeding Dr. C. A. Smith, who died a few weeks ago.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to the members of the medical profession. Name of sender should be given.

Dr. E. T. Bramlit of Malvern, Dr. J. F. Rowland of Hot Springs, Dr. Jas. W. Powell of Russellville, Dr. W. P. Jenkins of Oakland and Dr. J. B. Wharton of El Dorado visited in Little Rock this month.

Our advertisements in The Journal of the Arkansas Medical Society conform with the standards established by the Council on Chemistry and Pharmacy of the American Medical Association. We hope our members will favor those who favor us.

All original articles for this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from state, changes of location, etc., are always welcome.

Dr. J. C. Wallis, president of the Arkansas Medical Society, at the request of Dr. Jos. C. Bloodgood, secretary of the American Medical Aid Conference, has appointed Drs. E. N. Allen and W. F. Smith, Little Rock, and G. A. Warren, Black Rock, as First Aid Committee for our State Medical Society.

This Journal has never furnished cuts for illustration of articles. Authors who may wish to use cuts of drawings will have to pay for same at the invoice price. It will save a great deal of unnecessary delay and correspondence if this is understood when articles are prepared for the annual meetings.

Throughout the state, in almost every county, a vigorous campaign for new members is being waged. But let's not forget that before going forward we must make secure our present position. We must re-enlist every member who served in 1915. You can do your

share by sending a check to your county secretary today. Your dues were payable January 1.

Drs. L. L. Purifoy and S. J. McGraw of El Dorado have returned from New York, where they spent two months in post-graduate study.

Bi-monthly meetings are now held by the Union County Medical Society on the first Monday at 10 a. m. and the third Monday at 8 p. m., in order that the members from different sections of the county might conveniently attend at least once a month.

Dr. R. H. Von Ezdorf of the United States Public Health Service will come to Arkansas soon to aid local authorities in steps to prevent malaria. According to Dr. C. W. Garrison, state health officer, he will aid in eradicating conditions favorable for malaria in all communities where the local authorities are willing to co-operate.

Dr. Morgan Smith, dean of the Medical Department, University of Arkansas, attended the American Congress of Medical Education, Public Health and Medical Licensure, the Council on Medical Education, Council on Health and Public Instruction. The Federation of State Medical Boards and the Association of American Medical College, Chicago, Monday and Tuesday, February 7 and 8.

The American Orthopedic Association announces the appointment of Dr. Mark H. Rogers, Boston, as editor of THE AMERICAN JOURNAL OF ORTHOPEDIC SURGERY, the only periodical in the English language devoted to orthopedics. This Journal, which has now completed thirteen volumes as a quarterly publication, will henceforth be issued monthly, the first number in the new form being that of January, 1915.

The office of publication has been transferred from Philadelphia to Ernest Gregory, 126 Massachusetts Avenue, Boston. The subscription price is \$4.00 per year.

COUNTY SECRETARIES: The Journal is anxious to have, as soon as possible, a corrected list of county society officers. Report your monthly meetings and forward abstracts of all scientific papers read before them. We are pleased to receive them for publication. We wish to impress upon our readers that THE JOURNAL is the property of the Arkansas medical profession. The future of our official organ is entirely dependent upon the support

accorded it by the profession throughout the state.

OUR NEW STATE HOSPITAL CHIEF.

In addition to the announcement in last month's issue, of the fact that Dr. E. P. Bledsoe had taken charge January 1 of the State Hospital for Nervous Diseases, we wish to add that Dr. Bledsoe is not a native son of Arkansas, but he is a native Southerner from the good old State of Virginia and a cousin of Thomas Nelson Page. Dr. Bledsoe graduated from the Washington and Lee University as a Bachelor of Science and received his degree as M. D. at the Physicians' and Surgeons' College at Baltimore, and a post-graduate course at the Fordham University in nervous diseases. He comes to the State Hospital prepared by a term as resident physician at the Mercy Hospital at Baltimore and pathologist at the Bay View Hospital of that city. He also had experience at the State Central and Eastern Hospital. Both in his native state. Dr. Bledsoe has the good wishes of The Journal, and the profession throughout the state, we feel sure will give him their hearty support.

THE DETROIT SESSION.

While it is probably not necessary to remind the Fellows of the Association that the next annual session will be held in Detroit, June 12-16, attention should be called to the present indications that the attendance at the Scientific Assembly this year will be very large. A big meeting has been prophesied ever since Detroit was named as the place of meeting, and as arrangements have progressed, assurances have multiplied to substantiate this expectation. A year ago the Scientific Assembly was held on the Pacific coast; the year before, on the Atlantic coast at Atlantic City, at which point the Association has held its annual convention six times since it last met in Detroit twenty-four years ago. The place of meeting this year is near to the center of the medical population of the country. It is in a city seventh in population of the cities of the United States, conveniently located for a visit by rail, boat or automobile. Detroit, claiming as it does, to be the first city in automobile production, naturally has provided good roads. In a word, Detroit itself will attract physicians. Consequently, while the Committee on Arrangements is confident that the hotel accommodations will be ample, it is advisable that those who are plan-

ning to attend the annual session this year should follow the suggestion of the Committee on Arrangements and make their hotel reservations early, especially if they desire a "room with bath." A list of hotels and prices is published in The Journal of the American Medical Association for February 5, 1916.

BULLETIN No. 2.

DEAR DOCTOR:

To a friend who mailed Mr. Kipling a package of magazines, after having torn out the advertising pages to save postage, Mr. Kipling wrote: "Next time send the advertising pages and keep the rest. I can write the stories myself."

Advertising has become a necessity to readers. The advertising sections of newspapers and magazines contribute an important part of the information readers demand. The enterprising publisher tries to edit his advertising, as well as his editorial and news pages, so that all the matter will conform to his standards.

Nearly everything you eat, wear, or use in your home or profession, is advertised. Try to name some article you buy—such as pharmaceuticals, surgical instruments, underwear, hats, breakfast foods, auto supplies, toilet articles, furnaces, etc.—that are not advertised, and you will soon admit you are quite dependent on advertising; and that you buy, *chiefly* the advertised goods.

In all these respects the State Medical Journal endeavors to render its readers a special service. We want to make the advertising pages of this Journal of special interest to you. To this end we ask you, when answering advertisements, to mention the fact you saw them in this paper. *If what you want is not advertised in THE JOURNAL, please write the editor.*

Miscellaneous.

FIVE MINUTES' VALUE.

"*My enemies did not know the value of five minutes.*"—Napoleon Bonaparte.

Before you start out on this trip, doctor, waste just five minutes. Go back to your office, take down your latest book treating the disease you are fighting, and see if there isn't some new point to gain in the management of the case. A few moments spent every day in the study of your severe cases is the best spent time you have.

Never allow yourself to start to see a case until you have your poise, until you know your case, until you are in absolute command of every faculty you possess and the most expert knowledge available to you. If you have nothing new in the line you need to study, order the necessary books as soon as you return to the office. Don't be afraid to spend a little for medical books and journals.

Suppose you lose this patient, what will be your feeling in the matter? Will you feel that you have done the best that recent experiments and research could suggest? All the wisdom of the ages, all the expert knowledge of recent experiments, are yours for the seeking. If a new book is offered to the medical public, and it contains a new successful treatment for any case you have occasion to treat, do you not feel negligent if you lose a patient through lack of this knowledge?

A few minutes' study each day will place you on the fighting line a few minutes ahead of your dread enemy, disease, and with your advantaged position, make you the conquering commander. The average physician wastes enough time, which, if used, would make him equal, granting he has average general ability, to the best competitor in his state. Remember the value of five minutes and you will utilize the half hour you now persistent in wasting through thoughtlessness or go-easiness.—Edwin P. Haworth, Nitro-By-Hypo.

New and Nonofficial Remedies.

Since publication of New and Nonofficial Remedies, 1915, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies:"

CALCIUM PHENOLSULPHONATE, P. W. R.—A nonproprietary brand of calcium phenol-sulphonate admitted to New and Nonofficial Remedies. Powers-Weightman-Rosengarten Company, Philadelphia, Pa.

IRON LACTATE, MERCK.—A nonproprietary brand of ferrous lactate admitted to New and Nonofficial Remedies. Merck & Co., New York.

SODIUM PHOSPHATE, MONOBASIC, MERCK.—A nonproprietary brand of sodium acid phosphate admitted to New and Nonofficial Remedies. Merck & Co., New York.

PHLORIDZIN, MERCK.—A nonproprietary brand of phloridzin admitted to New and Nonofficial Remedies. Merck & Co., New York.

SULPHANILIC ACID, MERCK.—A nonproprietary brand of sulphanilic acid admitted to New and Nonofficial Remedies. Merck & Co., New York.

ERGOTIN, MERCK.—A nonproprietary brand of extract of ergot, purified, admitted to New and Nonofficial Remedies.—Merck & Co., New York.

ANTITHYROIDIN-MOEBIUS TABLETS, $\frac{3}{4}$ GR.—Each tablet contains antithyroidin-moebius, $\frac{1}{4}$ grain. Merck & Co., New York.

EQUININE TABLETS, 2 GRS.—Each tablet contains equinine, 2 grains. Merck & Co., New York.

EQUININE TABLETS, 5 GRS.—Each tablet contains equinine, 5 grains. Merck & Co., New York.

FERRATIN TABLETS, $7\frac{1}{2}$ GRS.—Each tablet contains ferratin $7\frac{1}{2}$ grains. Merck & Co., New York.

STYPTICIN HYPODERMIC TABLETS, $\frac{3}{4}$ GR.—Each tablet contains stypticin, $\frac{3}{4}$ grain. Merck & Co., New York.

STYPTICIN SUGAR-COATED TABLETS, $\frac{3}{4}$ GR.—Each tablet contains stypticin, $\frac{3}{4}$ grain. Merck & Co., New York.

STYPTICIN DENTAL TABLETS, $\frac{3}{4}$ GR.—Each tablet contains stypticin, $\frac{3}{4}$ grain. Merck & Co., New York (Journal A. M. A., January 1, 1916, p. 31).

DIONIN TABLETS, $\frac{1}{4}$ GR.—Each tablet contains dionin, $\frac{1}{4}$ grain. Merck & Co., New York.

DIONIN TABLETS, 1 GR.—Each tablet contains dionin, 1 grain. Merck & Co., New York.

THEOPHYLLIN SODIUM ACETATE TABLETS, 0.15 GM.—Each tablet contains theophyllin sodium acetate, 0.15 gm. Merck & Co., New York.

TRIPHENIN TABLETS, 5 GRS.—Each tablet contains triphenin, 5 grains. Merck & Co., New York.

TUBES TROPACOCAIN HYDROCHLORID, STERILIZED, 1 GR.—Each tube contains tropacocain hydrochlorid, 1 grain. Merck & Co., New York.

VERONAL-SODIUM TABLETS, 5 GRS.—Each tablet contains veronal-sodium, 5 grains. Merek & Co., New York.

IODIPIN TABLETS, 3 MIN.—Each tablet contains iodipin, 3 minims. Merek & Co., New York.

APIOL, MERCK.—A nonproprietary brand complying with the standards for apiol. Merek & Co., New York.

CREOSOTE CARBONATE, MERCK.—A nonproprietary brand complying with the standards for creosote carbonate. Merek & Co., New York.

PHENOLPHTHALEIN, MERCK.—A nonproprietary brand complying with the standards for phenolphthalein. Merek & Co., New York.

QUININ TANNATE, MERCK.—A nonproprietary brand complying with the standards for quinin tannate. Merek & Co., New York.

SODIUM NUCLEINATE, MERCK.—A nonproprietary brand complying with the standards for sodium nucleate. Merek & Co., New York (Journal A. M. A., January 8, 1916, p. 117).

SWAN'S TYPHOID BACTERIN (No. 44) (PROPHYLACTIC).—Marketed in packages (hospital) of thirty-six vials and in packages (Board of Health) of seventy-two vials. Swan-Myers Co., Indianapolis, Ind. (Journal A. M. A., January 15, 1916, p. 191).

RADIO-REM, OUTFIT No. 5.—An apparatus designed for the production of radioactive drinking water by the action of radium sulphate contained in terra cotta plates. It consists of two plates contained in 250-c.c. bottles; when the bottles are filled with water the two plates impart about 3.6 microcurie (10,000 Mache units) to 500 c.c. water daily. For action, uses and dosage, refer to the article on radium in New and Nonofficial Remedies. Schieffelin & Co., New York (Journal A. M. A., January 15, 1916, p. 191).

DIPHTHERIA IMMUNITY TEST (SCHICK TEST).—This test is intended to determine those persons who have not in their blood an amount of diphtheria antitoxin sufficient to render them immune to diphtheria. The test is of special value for use in institutions and among groups of persons exposed to diphtheria, in order that it may be determined which individuals should be given an immunizing dose of diphtheria antitoxin. It is also of value in the diagnosis of other conditions simulating diphtheric infections.

DIPHTHERIA TOXIN STANDARDIZED (SCHICK).—Marketed in sealed capillary tubes, each containing a solution of one-fiftieth of a minimal lethal dose for guinea pigs of diphtheria toxin. H. K. Mulford Company, Philadelphia, Pa. (Journal A. M. A., January 15, 1916, p. 191).

DIMAZON.—Diacethylaminoazotoluene. An orange-colored powder, insoluble in water but soluble in alcohol, chloroform, oils, fats and petrolatum. It does not stain the hands or cloth. It is said to be useful to promote the growth of epithelium in the treatment of burns, wounds, chronic ulcers, etc. Dimazon is marketed as follows:

Dimazon Oil.—2 per cent.

Dimazon Ointment.—2 per cent.

Dimazon Powder.—5 per cent. Heilkraft Medical Co., Boston, Mass. (Journal A. M. A., January 22, 1916, p. 275).

ICHTHALBIN TABLETS, 5 GRS.—Each tablet contains ichthalbin, 5 grains. Merek & Co., New York.

TRIFERRIN TABLETS, 5 GRS.—Each tablet contains triferrin, 5 grains. Merek & Co., New York.

BETANAPHTHOL BENZOATE, ROCHE.—A nonproprietary brand complying with the standards for betanaphthol benzoate. Hoffman-LaRoche Chemical Works, New York.

BETAIN HYDROCHLORID, ROCHE.—A nonproprietary brand complying with the standards of betain hydrochlorid. Hoffman-LaRoche Chemical Works, New York (Journal A. M. A., January 22, 1916, p. 275).

ERGOTININE CITRATE, ROCHE.—A nonproprietary brand complying with the standards for ergotinine citrate. Hoffman-LaRoche Chemical Works, New York.

HOMATROPIN HYDROCHLORID, ROCHE.—A nonproprietary brand complying with the standards for homatropin hydrochlorid. Hoffman-LaRoche Chemical Works, New York.

SEIDEN PEPTONE, ROCHE (SILK PEPTONE).—A nonproprietary brand complying with the standards for silk peptone. Hoffman-LaRoche Chemical Works, New York.

THEOBROMIN AND SODIUM ACETATE, ROCHE.—A nonproprietary brand complying with the standards for theobromin sodium acetate. Hoffman-LaRoche Chemical Works, New York (Journal A. M. A., January 29, 1916, p. 355).

Propaganda for Reform.

PROTONUCLEIN AND PROTONUCLEIN BETA.—Eight years ago the Council on Pharmacy and Chemistry published a painstaking and exhaustive report on protonuclein and other products of Reed & Carnrick. This report showed conclusively that the whole theory of nuclein therapy was a tissue of speculation, into whose texture was woven only a few slender threads of fact. Now the Council reaffirms its former action with regard to protonuclein. The objections to protonuclein apply with equal force to protonuclein beta, said to be protonuclein mixed with equal amounts of nucleoplasm and protoplasm of the spleen. In view of the lack of evidence, the claims made for protonuclein beta are unwarranted. The Council, therefore, reports that it is ineligible for New and Nonofficial Remedies (Journal A. M. A., January 1, 1916, pp. 38 and 48).

THE COMPOSITION OF LIQUID PETROLATUM.—As naphthene hydrocarbons predominate in Russian crude petroleums and paraffin hydrocarbons in many or most American crude petroleums, it was assumed that the petrolatums derived from these sources differed from each other in like manner. While both the naphthenes and paraffins are chemically inert, some unexplained therapeutic superiority has been asserted to reside in Russian liquid petrolatum. Benjamin T. Brooks, of the Mellon Institute, explains that most so-called "mineral oils" used for therapeutic purposes contain no paraffin hydrocarbons whatever, and that, regardless of the source of the crude petroleum, the fraction which constitutes the liquid petrolatum is composed essentially of naphthenes and polynaphthenes (Journal A. M. A., January 1, 1916, p. 38).

STUART'S CALCIUM WAFER COMPOUND.—The A. M. A. Chemical Laboratory reports that Stuart's Calcium Wafer Compound consists essentially of calcium sulphide and aloes or aloin. Like other so-called blood purifiers, it is essentially a cathartic (Journal A. M. A., January 1, 1916, p. 51).

HYDROPSIN.—According to the Ernst Bischoff Company, Inc., hydropsin is the juice of digitalis, squill, European birch, juniper and knot weed, dialyzed and physiologically standardized. The Council on Pharmacy and Chemistry reports that the composition

claimed for hydropsin brands it as an irrational mixture in which potent drugs are combined with, and more or less covered up by, others that are obsolete and inefficient. The name, instead of indicating its composition, suggests diseases in which it may be thoughtlessly and indiscriminately used. The claim that the danger of toxic or cumulative action has been removed, if accepted by physicians, tends to uncritical use with possible disastrous results (Journal A. M. A., January 8, 1916, p. 135).

DIGITALYSATUM.—Digitalysatum, according to the Ernst Bischoff Company, Inc., is the dialyzed juice of fresh digitalis physiologically standardized and containing 12 per cent alcohol. Sterisol-digitalysatum appears to be the dialysate without alcohol diluted with equal parts of physiologic salt solution. The preparations are advertised with claims which imply superiority to all other digitalis preparations. The Council on Pharmacy and Chemistry holds that attempts to create the impression that digitalysatum possesses all the virtues of digitalis without its chief disadvantage are to be condemned as likely to lead to incautious use of the preparation. The Council therefore declared digitalysatum ineligible for New and Nonofficial Remedies (Journal A. M. A., January 8, 1916, p. 135).

SO-CALLED SECRETIN PREPARATIONS.—At the request of the Council on Pharmacy and Chemistry, Prof. A. J. Carlson of the University of Chicago has studied the action of secretin when administered by mouth or directly into the intestine, and also investigated the secretin content of certain alleged secretin preparations. Carlson and his co-workers, like all previous investigators, found that secretin, when given by mouth or introduced even in enormous doses directly into the intestine, is entirely inactive. Further, they were unable to demonstrate the presence of secretin in samples of secretogen and another supposed secretin preparation (duodenin) bought on the open market, except that one bottle was found which contained a little secretin. Carlson and his co-workers conclude that there is as yet no reliable evidence that lack of secretin is a primary or important factor in any disease, and that, should this be established, secretin therapy, to be effective, must be intravenous. The Council endorsed the work of Professor Carlson

(Journal A. M. A., January 15, 1916, pp. 178 and 208).

TIGER-BONE THERAPY AND "CLINICAL EXPERIENCE."—In China the administration of powdered tiger-bone is, or was, a favorite form of treatment of supposed cardiac weakness. Since many patients have recovered after taking tiger-bone and no one has proved that they might not have died had they failed to take it, "clinical experience" stands back of the treatment. Not satisfied with the assertion of the dealers regarding the genuineness of the drug, the conscientious Chinese physicians subject the tiger-bone to a kind of physiologic standardization. He offers the bone to a dog! If it is an ox-bone—a frequent form of substitution—the dog will seize and eagerly gnaw it, whereas, according to the teachings of Chinese pharmacognosy, if it is a tiger-bone the dog will depart hurriedly with his tail between his legs. Much of our so-called clinical experience is not much better than that of the Chinese "clinical" evidence for tiger-bone therapy. Also, many physicians are wont to accept the statement of drug dealers without even making an attempt to check the claimed identity of the advertised remedy (Journal A. M. A., January 15, 1916, p. 197).

MIXED ANTITYPHOID AND ANTIPARATYPHOID INOCULATION.—The use of any mixed vaccine is to be looked on askance. The simultaneous inoculation against typhoid, paratyphoid A and paratyphoid B needs further study in many directions. Reason and judgment at present would seem to approve the idea of using a mixed vaccine for the typhoid and paratyphoid infections. If a practical method of using this mixed vaccine can be devised, it seems to promise results (Journal A. M. A., January 15, 1916, p. 193).

FULTON'S COMPOUNDS.—A "Bulletin" sent out by the promoters of Fulton's Renal Compound and Fulton's Diabetic Compound gives an account of the alleged good results of the treatment in the case of a Mr. J. J. Pennepacker. The columns of a local newspaper announce the amputation of this man's leg for diabetes (Journal A. M. A., January 29, 1916, p. 373).

STRONTIUM BROMID.—The official bromid contains about two-thirds as much bromid as is contained in potassium bromid and about

three-fifths as much as that contained in sodium bromid. Hence, it may be expected that the bromid action from strontium bromid will be much less than that of either potassium bromid or sodium bromid (Journal A. M. A., January 29, 1916, p. 376).

STRONTIUM SALICYLATE NOT SUPERIOR TO SODIUM SALICYLATE.—In a series of carefully controlled trials, carried out in the Lakeside Hospital, Cleveland, M. A. Blankenhorn shows that strontium salicylate possesses no advantages over sodium salicylate as regards either therapeutic efficiency or freedom from undesirable by-effects. The salicyl content of strontium salicylate is about four-fifths that of sodium salicylate. This smaller salicylate content may have contributed to the notion that strontium salicylate is likely to cause salicylism. This notion may have also arisen from the fact that the more expensive preparations are likely to be given in smaller doses than the cheaper sodium salicylate. That the strontium salt of salicylic acid has no advantage over the sodium salt, has also been pointed out in the report of the Council on Pharmacy and Chemistry on rheumalgine (Journal A. M. A., January 29, 1916, pp. 331 and 362).

Married.

CHEAIRS-TAYLOR.—In Argenta, Thursday, January 20, Dr. D. T. Cheairs of Tillar and Miss Minnie Maye Taylor of Argenta.

Obituary.

DR. E. M. SCOTT.—Dr. E. M. Scott of Hamburg died in Little Rock January 27, age thirty-seven.

DR. W. A. LEA.—Dr. W. A. Lea, sixty-four years old, died January 22, at his home in Princeton, Dallas County. He is survived by his wife and three daughters.

DR. ROBERT M. WILSON.—Dr. Robert M. Wilson, sixty years old, died January 26, at his home in Hope. He is survived by his wife, three sons and two daughters. He also leaves one brother and two sisters, a large number of nieces and nephews, one of the latter being Dr. Robert M. Wilson, representing the Southern Presbyterian Church in medical work in Korea.

County Societies.

SEARCY COUNTY.

The Searcy County Medical Society met in London January 26 and elected the following officers for the ensuing year: President, A. S. Melton, Snowball; vice president, S. G. Daniel, Marshall; secretary-treasurer, S. W. Wood, Marshall; delegate to State Society, J. A. Henley, St. Joe.

DREW COUNTY.

(Reported by Dr. M. Y. Pope, Sec'y.)

At a meeting of the Drew County Medical Society, held at Monticello recently, the following officers were elected for the current year: President, Dr. A. S. J. Collins; vice president, Dr. M. B. Corrigan; secretary and treasurer, Dr. M. Y. Pope; censor Dr. W. A. Brown.

WASHINGTON COUNTY.

(Reported by J. W. Walker, Sec'y.)

The Washington County Medical Society met Tuesday, January 4, 1915.

Dr. W. H. Moek of Prairie Grove read a paper on "Blood Pressure in Diagnosis and Treatment."

The following officers were elected for the ensuing year: President, Dr. W. H. Moek, Prairie Grove; vice president, Dr. H. H. Towler, Fayetteville; treasurer, Dr. Otey Miller, Fayetteville; secretary, Dr. J. W. Walker, Fayetteville.

UNION COUNTY.

(Reported by H. H. Niehuss, Sec'y.)

The Union County Medical Society met in El Dorado, February 7. The program was as follows: "Influenza," by Dr. McGraw; "The Uses of Emetine," by Dr. Jarrett.

The meeting was largely attended and considerable enthusiasm shown.

El Dorado will have an exhibition during "Baby Week," March 4-11, with the assistance of the local club women; the expenses will be paid by the County Society. Two lectures will be given by Dr. Morgan Smith of Little Rock.

The following officers were elected at the December meeting: President, Dr. Foster Jarrell; vice president, E. N. Elkins; secre-

tary, H. H. Niehuss; delegate to the State Society, Dr. S. J. McGraw.

JEFFERSON COUNTY.

(Reported by Dr. Fred C. Rowell, Sec.-Treas.)

This, the first meeting of the year 1916, was called to order by our new president, Dr. J. M. Lemon, Tuesday, January 4. The following were present: J. M. Lemon, William Breathwit, A. W. Troupe, J. F. Crump, Frank Lieberman, T. W. Woodul and R. B. Luck.

Dr. Lieberman and Dr. Woodul gave an interesting talk on smallpox, which elicited a general discussion.

The president appointed the following Board of Censors: Drs. Lemon, Breathwit, Jordan and Woodul.

Dr. Breathwit gave some very acceptable points on how to keep up the proper interest in our society meetings.

INDEPENDENCE COUNTY.

(Reported by Dr. Paul H. Jeffery, Sec'y.)

Independence County Medical Society met December 6. Members present: Drs. V. D. McAdams, C. G. Hinkle, W. J. Long, T. N. Rodman, L. T. Evans, O. L. Bone, J. Hayden, J. B. Ivy, O. J. T. Johnston, F. A. Gray, S. A. Drennen, W. A. Wyatt, W. B. Lawrence and P. H. Jeffery.

The following officers were elected: Dr. F. A. Gray, president; Dr. T. N. Rodman, vice president; Dr. P. H. Jeffery, secretary; Dr. V. D. McAdams as delegate to the State Medical Society, with Dr. C. G. Hinkle as alternate.

Program was rendered:

"Valvular Lesions of Heart," by Dr. T. M. Robertson.

"Report of Case of Nasal Diphtheria," by Dr. C. G. Hinkle.

Members on program for the next meeting: M. S. Craig, O. L. Bone, J. B. Roe, W. J. Long, O. J. T. Johnston and G. S. Saylor.

MONROE COUNTY.

(By P. E. Thomas, Jr., Sec'y.)

The Monroe County Medical Society met in Clarendon January 11, 1916. The members present: Dr. T. J. Stout, Dr. P. E. Thomas, Dr. T. B. Sylar, Dr. A. H. Gilbrech, Dr. P. E. Thomas, Jr.

The minutes of the last meeting were read and adopted.

Dr. A. H. Gilbrech read a paper on "Cervicitis," with a very interesting case report.

Drs. Stout and Sylar reported clinical cases.

At next meeting of the society an amendment will be voted on to change the meeting place, making it Clarendon, Holly Grove and Brinkley successively.

Before adjournment, Dr. Stout reported to the society that the doctors in Brinkley were going to establish a small hospital which is badly needed, and he wanted to ask the members of the society for their ideas. All of the members assured him that they would assist in any way possible and by their good will and co-operation, hoped to make a hospital in the county a successful undertaking.

The next meeting will be at Clarendon the second Tuesday of February, 1916.

MISSISSIPPI COUNTY.

(Reported by Earl E. Craig, Sec'y.)

The Mississippi County Medical Society met in the courthouse Tuesday evening, January 11. Members present: A. E. Turrentine, M. O. Usrey, J. F. Sanders, Blytheville; H. C. Dunavant, O. Nowton, C. M. Marwell, Osceola; T. F. Hudson, Luxora, and E. E. Craig, Wilson.

The meeting was one of "get together," in which everyone pledged himself that he would go to his work with increased courage and determination for the advancement of the organization.

The retiring president, Dr. A. E. Turrentine, made his farewell address, taking for his theme "Preventive Medicine; Its Incipency and Progress."

Dr. J. F. Sanders followed with a paper, urging and pleading for a more careful and thorough examination in pulmonary diseases, especially tuberculosis. His paper elicited much discussion and impressed the profession with the necessity of an early diagnosis in the poor unfortunates who have fallen prey to this one dreaded malady.

Dr. O. Howton spoke of the profession from a business standpoint and the necessity for co-operation.

After dispatch of all business pertaining to the society, new officers were elected as follows: Dr. C. M. Harwell, president; Dr. M. O. Usrey, vice president; Dr. Earl E. Craig,

secretary and treasurer (re-elected); Dr. T. F. Hudson, delegate to the state meeting; Dr. J. F. Sanders, alternate.

The house adjourned to meet in Blytheville on Tuesday, February 8.

Book Reviews.

INTERNATIONAL CLINICS.—A quarterly of illustrated clinical lectures and especially prepared original articles by leading members of the medical profession throughout the world. Edited by Henry W. Cattell, A. M., M. D., Philadelphia. Volume IV, twenty-fifth series, 1915. J. B. Lippincott Company, Philadelphia. Price, \$2.00.

This copy represents the twenty-fifth anniversary number. Among the interesting articles we find a paper by Dr. Julius Grinker, on "Progress in Neurology and Psychiatry," during the last twenty-five years. Two papers by Dr. Ballantyne, on "The Progress in Obstetrics During the Past Quarter Century and Twenty-five Years' Progress in Gynecology." Dr. Crile contributes a paper on "The Progress of Surgery During the Past Quarter of a Century." The volume closes with Dr. J. E. Sweet's article on "The Surgery of the Pancreas." (Alvarengo prize essay.)

THE CLINICS OF JOHN B. MURPHY, M. D., AT MERCY HOSPITAL, CHICAGO.—December, 1915. Volume IV, No. 6. Published bi-monthly by W. B. Saunders Company, Philadelphia and London. Price per year, \$8.00.

This attractive number of the clinics was edited by Dr. P. G. Skillern, Jr., of Philadelphia, and contains twenty-eight descriptions of interesting surgical cases conducted by Dr. Murphy. Of unusual consequence is one on "Leukoplakic Papilloma of Buccal Mucosa," "Ablation of Papilloma." "Plastic Flap Restoration of Mucosa."

NITRO BY HYPO.—A peptonized tonic for the physician, by Edwin P. Haworth, Superintendent of The Willows Maternity Sanitarium, Kansas City. Published by The Willows Magazine Company, 2929 Main Street, Kansas City, Mo. This is a 12 mo. book of 128 pages and bound in gray silk-finish cloth and retails at \$1.00 per volume.

This little work is just off the press. The printing and binding has been made to harmonize with the optimistic thought and cheerful sentiment of the text itself. Every article in this volume should prove to be of intensified interest to the practitioner for its pointed application to his needs and problems, particularly if he requires an occasional spur to revitalize his lagging energies.

LABORATORY METHODS, WITH SPECIAL REFERENCE TO THE NEEDS OF THE GENERAL PRACTITIONER.—By B. G. R. Williams, M. D., and E. G. C. Williams, M. D., with an introduction by Victor C. Vaughan, M. D., LL. D. Third edition. Illustrated with forty-three engravings. Published by C. V. Mosby Company, St. Louis.

This book describes the essential factors and methods for making laboratory examinations and looking for germs. Suggestions as to equipment and microscopie technic are given under "General Consideration."

DIARRHEAL, INFLAMMATORY, OBSTRUCTIVE AND PARASITIC DISEASES OF THE GASTRO-INTESTINAL TRACT.—By Samuel G. Gant, M. D., LL. D., Professor of Diseases of the Colon, Sigmoid Flexure, Rectum and Anus, at the New York Post-Graduate Medical School and Hospital. Octavo of 604 pages, 181 illustrations. W. B. Saunders Company, Philadelphia and London, 1915. Cloth, \$6.00 net; half morocco, \$7.50.

The author of this book has prepared a work giving a practical treatise covering the etiology, pathology, symptoms, diagnosis and treatment of acute and chronic diarrhea and allied affections, as well as diseases consequent upon intestinal parasites. Distinctive chapters are devoted to a "Formulary" and the "Irrigating" and "Surgical Treatment" of affections of the gastro-intestinal tract.

THE TREATMENT OF FRACTURES.—With notes upon a few common dislocations. By Charles L. Scudder, M. D., Surgeon to the Massachusetts General Hospital; associated in surgery at the Harvard Medical School. Eighth edition, revised and enlarged. Octavo volume of 734 pages, with 1,057 original illustrations. Published by W. B. Saunders Company, Philadelphia, 1915. Polished buckram, \$6.00; half morocco, \$7.50 net.

This richly illustrated edition presents all the new suggestions of treatment which have stood the test of experience. The greatest recent advance in the treatment of fractures of the bone is the application of the principle of the autogenous bone-graft in cases of delayed union and nonunion. Dr. Scudder says that definite indications must be present in any case before operative treatment is employed. Operative treatment is not to be undertaken lightly.

DISEASES OF THE SKIN.—By Henry H. Hazen, A. B., M. D., Professor of Dermatology in the Medical Department of Georgetown University; Professor of Dermatology in the Medical Department of Howard University. Two hundred and thirty-three illustrations, including four color plates. Published by C. V. Mosby Company, St. Louis.

The author of this book describes and illustrates particularly the common diseases, especially emphasizing the skin diseases in the

negro. All of which makes it of unusual value to the general practitioner of the South. Dr. Hazen says: "The general tone of the skin depends upon the general health of the body. There is no better general tonic than the shock of a cold bath to those who are able to react to it, hence its peculiar fitness for cutaneous affections."

WHAT TO EAT, AND WHY.—By G. Carroll Smith, M. D., of Boston, Mass. Second edition, thoroughly revised. Octavo of 377 pages. W. B. Saunders Company, Philadelphia and London, 1915. Cloth, \$2.50 net.


The desire of the author of this volume is to place before the physicians a book describing the elements of food and the principles underlying its use, the essential reasons a change may be made in the most practical way.

The diet lists given are comprehensive enough to suit many different phases of the same disease, *e. g.*, cardiac affections with diarrhea as a symptom. This edition gives a new chapter on "Exercise" and one on "Rheumatism." The different affections of the stomach have all been rewritten and greatly enlarged, and many other chapters have been increased and brought up to date.

DISEASES OF THE NOSE AND THROAT.—By Algernon Coolidge, M. D., Professor of Laryngology in the Harvard Medical School. 12 mo. of 360 pages, illustrated. W. B. Saunders Company, Philadelphia and London, 1915. Cloth, \$1.50 net.

The object of the author in presenting this small book to the profession is to guide him to the important details of examination, diagnosis and treatment of the upper respiratory tract. He describes methods of examination, clinical history, briefly reviews the anatomy and physiology of the nose, diseases of the external nose, nasal septum, nasal cavities, accessory sinuses, tumors of the nasal and accessory cavities, anatomy of the pharynx, the tonsillar ring, diseases of the pharynx, acute constitutional diseases, chronic infiltrating and ulcerating diseases, anatomy and physiology of the larynx, diseases of the larynx, neuroses of the larynx, tumors of the larynx, intubation and tracheotomy, bronchoscopy, and esophagoscopy and the mouth and tongue.


The last chapter considers "Therapeutics," and gives sprays, gargles, douches, mouth washes, inhalations, insufflations, lozenges, ointments, caustics, adrenalin and nitrate of silver.



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THE JOURNAL

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No. 10

Original Articles.

CONGENITAL MALARIA.*

By Henry Thibault, M. D.,
Scott.

Congenital malaria is probably an accident of intra-uterine life; and, considering the great number of women who bear children while suffering from active malaria, and the rarity of the parasites in the blood of the new born, it must be an exceedingly rare accident. A number of observers, who have been prominent in the making of the history of malaria since Laveran discovered the parasite, have doubted the existence of congenital malaria. Most of these men examined the blood of a few infants born of infected mothers, and when they failed to find parasites, drew conclusions that were faulty on account of the limited number of observations. A few well-authenticated cases have been reported, and to these I shall add the four cases to be presently reported.

During the last twelve years I have examined the blood of the new born of 246 actively infected mothers. This number included three twin pregnancies, making 249 infants whose blood was examined before the fifth day of post-natal life. Two hundred and thirty-four of these infants were born alive and fifteen were still born. Three of the living and one of the still born were found to be infected with malaria. One child born alive died of malaria on the seventh day after birth. Two of the infected children born alive had tertian malaria. One born alive who died on the seventh day after birth and one still born child had estivo-autumnal malaria.

The two children born with tertian malaria were large, well-nourished males. Each of them had their first chill within eight hours after birth. The two born with estivo-autumnal malaria were small (five and one-half pounds and six and three-quarters pounds, respectively), thin and poorly nourished. The hands were like claws and the skin was wrinkled and parchmentlike. Emaciated babies of this type are often born of mothers who have estivo-autumnal malaria, but, as a general rule, the child has neither fever nor parasites. These children usually desquamate soon after birth, and if protected from post-natal infection, soon become plump and active. The emaciation in these cases is probably due either to the action of toxines or to intra-uterine starvation on account of maternal anemia.

Case 1. The mother had irregular chills during August, 1903. During September and up to the day of her confinement, October 14, she had a chill every other day. At 11 a. m., October 14, she gave birth to a male weighing ten pounds, two ounces. He was fat, well formed and vigorous. He seemed normal in every way except that there was no opening in the prepuce. When I went to circumcise him at 2 p. m. I found that he and his mother were each having a chill. The child's temperature rose rapidly to 102.6 degrees F. On account of ballooning of the prepuce and moderate distention of the bladder, he was circumcised as soon as the cold stage had passed. Smears made of blood taken from the prepuce showed a moderate number of young tertian rings. He began to sweat freely six hours after the chill, and eight hours after the chill his temperature was 99 degrees F.

He was given one and one-half grains of quinin bisulphate in solution by the mouth, three times a day, and had no more chills;

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, held in Little Rock, May 3-6, 1915.

but smears made October 15 and October 17 showed a few parasites. None were found after October 17.

Case 2. A white woman who had tertian chills September 8 and September 10, 1904, was delivered of a ten-and-a-half-pound, fat, male child, on September 14, at 1 p. m. At 6 p. m. the nurse noticed that the child had fever and could not be aroused to take the breast. A few hours later he sweated, and for the next forty hours seemed perfectly normal. September 16, at 4 p. m., he was again in a deep sleep with a high temperature (103 degrees per rectum). His blood taken on this day and on September 17 showed two to four tertian rings to the field. On September 18, at 10 a. m., he was given one grain of quinin and urea hydrochlorid by intramuscular injection. At 4 p. m. he had his third chill and the dose was repeated. For the next eight days he was given one grain of this salt, by intramuscular injection, morning and evening. He had no more chills after September 18, and after September 20 no more parasites could be found in his blood.

Case 3. A colored woman who had had a few well-marked chills at varying intervals from July, 1910, to October 6, 1910, was delivered October 31, 1910, of a weasened, male child weighing five and three-quarters pounds. The infant was weak, inclined to sleep all the time, and could never be made to take the breast. On November 4, when the child lacked four hours of being five days old, I was called in consultation to see the mother, who was thought to be suffering with puerperal sepsis. The mother's blood contained a great number of crescents, while that of the child contained myriads of estivo-autumnal rings.

The child was in a deep stupor, from which he was never aroused, and in spite of quinin given intramuscularly, died November 6, his blood still containing a good many parasites.

The fact that this child's blood contained only ring bodies when his mother's blood contained only gametes, caused me to consider post-natal infection; but the fact that by the middle of the fifth day of post-natal life more than 10 per cent of his corpuscles were infected, and that careful search of the house on November 4, 5 and 6 failed to reveal any mosquitoes, overbalanced this phenomenon and the next case absolutely settled this question.

Case 4. A colored woman who had had chills all the fall of 1910 and summer of 1911, gave birth to a weasened, emaciated, full term, dead child on September 4, 1911. The child's blood contained great numbers of estivo-autumnal rings, but no gametes. Smears from the spleen, bone marrow, brain and liver all showed great numbers of parasites in the ring stage. No rings could be demonstrated in the mother's blood, though she carried 218 crescents per 500 leucocytes. She had a chill four days after delivery and rings were then demonstrated in her blood along with the crescents.

DISCUSSION.

Dr. Hoge (Fort Smith): This is a very important subject and one that has a great deal of interest for doctors. It should impress upon us all that every child having fever should have its blood examined immediately, because the proper treatment of the infection will obviate distressing consequences. The question of malaria being a congenital condition has been much debated pro and con. Many authorities have held that it could not possibly be a pre-natal condition. A report in the Archives of Pediatrics for January last describes two cases which occurred in New York about the middle of January. We know that it would be absolutely impossible for the child to contract it there after birth at that time.

The doctor's paper dealt solely with cases and diagnosis and very slightly with treatment. I had a case recently where the baby developed malaria some three weeks after birth. The mother four months before had been treated for malaria, but was thoroughly treated at that time and all parasites eliminated. The baby woke up one night with a high temperature, 103½ degrees. Examination of blood showed both tertian and quartan parasites. It was the first case I had ever seen in a child of that age. I examined my books to see if I could find any reference to such a condition, but was unsuccessful in finding any treatment suggested. Desiring to do something and do it at once, I gave one grain of bisulphate of quinin every three hours. This may seem rather large dosage, but the baby developed no symptom, except that it was somewhat nervous. The result was gratifying; parasites were destroyed and symptoms promptly disappeared. We are told that we have another remedy in sodium cacodylate in many cases where quinin is not tolerated or is inefficient. There are a few cases in which the parasites are not destroyed by quinin, and in these instances we may obtain good results from the use of cacodylate of sodium in 1-30 grain doses. It can be used safely and without fear, allowing 1-30 grain of cacodylate daily in infants.

Dr. G. A. Warren (Black Rock): A few years ago I was in Dr. Sanders' office when he was following out his investigation in regard to infantile paralysis. Dr. Craig and I had a case of infantile congenital malaria that died despite all the efforts we could put forth to save it. I reported it to Dr. Sanders at the time and he decided that it was congenital. Some of the authorities question this fact, but that was undoubtedly a case in point. Dr. Craig was quite positive as to the findings. We took a drop of blood on a slide and demonstrated the presence of the malarial parasites.

Dr. Thibault (closing): There is one point that I want to emphasize—that is, that the man who goes out expecting to find malarial parasites in the blood of all babies born of infected mothers will certainly be disappointed, because 99 per cent of these babies will be found free from malaria, and if they are absolutely protected from mosquitoes, will never have it.

This paper does not deal with the treatment of malaria, but I might answer the doctor's question about the use of salvarsan by a somewhat general statement. Ordinarily, quinin is the best anti-malarial remedy, but sometimes when it is given in insufficient dosage in the early part of an attack, the malarial parasites may acquire a certain resistance to its action, just as Ehrlich has shown that trypanosoma gambiense may become immune to atoxyl or trypan red under the same conditions. When malarial parasites have thus become "quinin fast," or very resistant to its destructive action, we may, by supplementing its action with that of some other anti-malarial drug (though it be one much less destructive to the malarial parasite when used alone), completely kill out the parasites. Thus, in those cases so resistant to quinin, the addition of an arsenic compound, methylene blue, or of both drugs, may cause the rapid destruction of the parasites. Gametes are exceedingly resistant to all drugs, and when they are present in great numbers a combination of the action of several drugs acting over a long period of time is generally necessary to entirely clear them out.

RATIONAL THERAPEUTICS.*

By Thos. Douglass, M. D.,
Ozark.

It is an amazing thing that people presumably rational, at any rate belonging to a race endowed with reason, should use reason to so limited extent in the conduct of their affairs. Nowhere is this more evident than in the domain of therapeutics. For many ages man has been under the delusion that for every human ill there exists somewhere in nature a perfect remedy. This has led to a general ransacking of the vegetable and mineral kingdoms, and now the search is proceeding very extensively in the animal kingdom and organo-therapy is flourishing, and it is an ordinary procedure for a patient to be given a hypodermatic dose of twenty millions of a lower organism. What! is *Similia similibus eurantur*—the hair of the dog will cure the bite—somewhat true after all? No man attempting to hold a scientific attitude toward truth should ever vehemently deny anything lest finally he be compelled to admit something of truth therein. Considerations of this sort will not deter us from fighting most ear-

nestly such absurd propositions as that of the anti-vivisectionists and the anti-vaccinationists. In all therapeutic procedures involving the administration of a remedy, of which we do not know enough, to an organism, with which we are none too well acquainted, we will try to be at least fairly sure that we are taking the lesser of two evils. In choosing vaccination rather than smallpox we are rational, certainly; but there are many fairly intelligent people who think otherwise and deliberately close their minds to clear and positive evidence. But, if on these subjects a considerable number of people are irrational, we cannot say much, for the medical profession, one of the great thinking classes, is quite irrational with regard to many therapeutic measures. We have quite enough data to settle the fate of a good many articles. Why any longer put up with them, experiment with them, or require the medical student to study them? If our materia medica is a great hodgepodge, and a majority of the text-books on that subject are merely well-arranged cemeteries filled with the records of treatments that have gone before, and, as Dr. Ray Lyman Wilbur remarks, is it not long past time when we should cut out with ruthless hand all the known inert and useless and settle down to a scientific basis of known fact, thus greatly simplifying the problem of further progress? The fewer drugs we have to study, the more we shall know about them. A great deal is known about a few drugs, such as digitalis, but we do not yet know enough. Even now, how many of us know how to use digitalis in heart disease? A great many drugs have hardly been studied at all. Of course, a large number are not worth it.

Dr. H. C. Wood says: "One reason I believe that more advance has not been made by the body of clinicians is their carelessness in observation and recording. The pharmacologist can only suggest. The clinician must work out his own salvation."

The main contention of this paper is that we should follow the lead of such men as Dr. Oliver Osborne of Yale, and eliminate all the rubbish from the pharmacopeia. No question that the diligent search everywhere has resulted in discoveries of great importance. This should not deter us from eliminating the unfit, even though something mildly useful should go also. In all the departments of life

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we are too much inclined to take care of a lot of junk. In every house a periodical burning would be a good thing. A fire compelling us to start over would not be without compensation. If we could completely forget about one-half our materia medica it would be very much to the advantage of us and our patients. As Dr. Willbur says, "A few drugs well understood are of more value than a whole medicine chest. The man who understands the intelligent use of such remedies as opium, castor oil, quinin, calomel, the salicylates, and digitalis, need not fear as a competitor the drug clerk who later studies medicine and who has everything on the shelves at his fingers' ends."

I suppose many of you welcomed as I did, Potter's Therapeutics with its wealth of therapeutic indications and long list of remedies under each disease from which to choose. But we were only doomed to disappointment, because in each list about three-fourths were worthless for the purposes indicated. What need to be told that carbolic acid has been used in typhoid? Nobody is using it now, and what we want to know is what remedies may we expect to accomplish something for our patients. What would a good practitioner not fail to give? I wonder how many of this society are dosing their typhoid patients with acetozone? I did once. One of my weaknesses is that I will try nearly anything once, especially if presented with the usual skill of the polite detail man. I am not using acetozone now. I do not know whether it is of any value. I am just not using it now.

Not until the great war began did I really take to heart the lesson of the committee of the A. M. A., which reported after careful investigation that sodium salicylate is no more depressing than aspirin or the sodium salicylate of the natural oil of wintergreen, nor any more irritating to the stomach. Before, I had prescribed a quantity of aspirin. I have prescribed less than half an ounce since. Since that time I have had this exemplified over and over and notably in one case of neuralgia occurring in a woman aged sixty-three, a morphin addict, to whom I gave sodium salicylate in five- to ten-grain doses every three or four or five weeks while she was recovering from the reduction of her morphin doses. The morphin was reduced to nothing in four weeks. She had some burn-

ing pain in her stomach a few times (we have had that from aspirin), and she vomited once or twice, but I was able to continue the salicylate by simply directing her to take a half glass of milk after each dose. This seems to me a lesson of importance, particularly to the pocketbooks of our patients.

That remarkable man, John Wesley, wrote a book on Primitive Physick, of which an interesting account has been given recently by Dr. George Dock. This book was written for the purpose of relieving the poor from expensive medication, and doubtless did great good in its day. Many of its therapeutic absurdities are no worse than some found in the medical books of that day, and, in fact, no worse than some of the present-day publications. We haven't gotten away from disgusting therapeutics, notwithstanding the lesson of agreeable medication taught us by our friends, the homeopaths, who got a lot of our patients by reason of it, and too little attention is still paid to it by the regular profession. Within the last few years a physician somewhat prominent in these United States, discussing autogenous vaccines, related that he had cured gonorrhea in a man and woman by placing some—as much as was obtainable—of the pus from their urethras on their tongues! Now, wouldn't you just about as soon take sheep pills?

In H. C. Wood's Pharmacology and Therapeutics are listed a number of drugs as of minor importance. The following are included: Valerian, cypripedium, hops, lactucaria, cimicifuga, musk, asafetida, sumbul and viburnum as calmatives. Sodium bromid is a better one and could readily replace the whole list. Why, then be bothered with them? A number of so-called alteratives includes taraxacum, stillingia, xanthoxylum serpentaria, eupatoria and salvia, all of more than doubtful utility. Under local irritants are listed a large number; most prominent are arnica and myrrh. Of all these I have only used a very few and am strongly inclined to accept the judgment that we could readily dispense with all of them. The earnest campaign of Dr. Osborne for a rational pharmacopeia should have the cordial endorsement of every member of this society. Certainly, the requirements for admission of a drug as given by him seem entirely reasonable: That the drug should have therapeutic

value; that it should be pure; that its preparations be of the best. His objections to the manner of revision seem well grounded. Of the fifty members of the Revision Committee, only six were practicing physicians. This committee cared not one iota, as Dr. Osborne, remarks, what the medical societies thought about the drugs to be admitted. This opinion of one of them was circulated amongst the committee: "The Revision Committee may wisely forget about nine-tenths of the well-meant advice which has come to it, thankful for the interest shown by an increasing number of physicians." As an excuse for admitting a large number of worthless drugs, a study was made of 117,000 prescriptions collected from different parts of the United States, showing the number of times these useless drugs were prescribed. Some were deleted because they are worthless; why not all of them? The chairman of the Committee on Scope dissolved favorable to admission sixty-five tied votes. About this we cannot complain too much, as the chairman is a practicing physician, Dr. Solomon S. Cohen. Dr. Osborne rightly objects that the number of times a worthless drug is prescribed is no criterion of its value. He gives a considerable list of these drugs he thinks are worthless which are to be admitted. We can readily agree with him as the large majority. In this list are the following: Arnica, anthemis, berberis, calenfula, calumbo, cannabis ind., Irish moss, cimicifuga, condurango, convalaria, crocus, yerba santa, frangula, gambu (pale catechu), cotton root bark, grindelia, guaiaie, hematoxylum, hydrastis, kino, krameria, lactucarium, leptandra, lupulin, matricarium (German chamomile), mezererum, musk, oleores, petrosina, oil pennyroyal, pareria, poke root, pyrethrum, quassia, quillaja, sunach, saw palmetto, blood root, sarsaparilla, senega, serpentaria, taraxacum, triticum, uva ursi, xanthoxylum, corn silk and a number of inferior preparations. Of all the list I have never used more than a very few, and I can easily dispense with them. The principal ones I have used to any extent are cannabis indica and yerba santa.

It seems to me that the fact that these drugs are of little value could be determined readily by some authoritative body, if it has not already been done to the satisfaction of everybody. And having been done once for all, there is no need for expending further time on them. Of course, for those who are

still using eccinacea and thuja, there is no hope. It has not been many years since physicians shared with the public an exaggerated idea of the value of drugs in disease. There has come a clearer recognition of the limited amount of good drugs can do in disease. In fact, there has been some tendency to underestimate the value of drug effects. One of the greatest physicians of our day, who deserves to rank with the great doctors of all time, William Osler, has been accused of therapeutic nihilism. Honor him for his truth and honesty. To no one more than to him are we indebted for clear views on the subject. There is no advantage, but rather injury, in clinging to false beliefs, however cherished and hoary. There is no doubt that a great deal of the good effect commonly ascribed to drugs is purely psychological, and deductions based on a limited number of cases are not of much more value than patent medicine testimonials. It is an altogether wholesome tendency that even with extensive favorable reports we have learned to regard new therapeutic means with doubt. We are now glad that we did not accept the Friedman tuberculosis remedy, and, notwithstanding favorable clinical reports far outweighing any similar efforts of the patent medicine people, the profession has not accepted the phylacogens. These remedies are, however, getting very extensive trial, and some have faith. I have not yet seen any certain results therefrom. I have not yet been able to place the real important value of electro-therapeutic—does anyone know it now? Is electricity of much importance and wide application in disease treatment? What use I have made of it has not been productive of satisfactory results. It is an attractive therapeutic; I would like to find it effective. The public believes in it extensively. It is probable that electricity has very limited applicability. No doubt exists as to the value of the *x-rays* in enabling us to correctly diagnose and treat fractures, locate foreign bodies, and in exploring the internal viscera. Very valuable studies of the colon have been possible by this use; but as a therapeutic measure, far less can be said of this, nor are the high frequency and sinusoidal currents of much therapeutic value. I have little patience with electro-therapeutic application when the effect is largely upon the mind of the patient.

As to radium, it does not matter; it is too expensive for our consideration. I heard of a man in a town near Ozark who spent something like thirteen hundred dollars for radium treatment of a cancer, all to no avail. This is discouraging.

Holding an important place in a noble profession, each member of the Arkansas Medical Society should look to it that his own prescribing be entirely rational and that the useless, the inert, the too expensive be eliminated. Let us be something more than expensive ornaments to the environments of our patients.

DISCUSSION.

Dr. Goldstein (Fort Smith): I am certainly glad that Dr. Douglass chose the subject that he did. In no field of medicine do I find more disparity of opinion and conflict of ideas and experience.

I rise to condemn some of the common methods which the general practitioner often uses in the treatment of skin diseases. If a thorough examination and careful diagnosis were made and the necessary remedy applied, we should soon stamp out a large percentage of these annoying conditions.

A patient with dermatitis comes to you. You say, "Well, this is a skin disease. I will paint the surface with tincture of iodine." The use of this strong remedy aggravates the inflammation of the already inflamed and irritated skin.

I saw a case a few days ago of simple urticaria which had been treated with an irritating lotion. Her arms were blistered. The doctor had suggested that she probably had pellagra.

I do not know why he used an iodine preparation. I made a careful examination and diagnosed it urticaria, with iodine inflammation. I prescribed a dose of salts and told her to come back for further observation to determine as to the alleged pellagra infection.

I must strongly condemn the use of iodine in the treatment of ordinary skin lesions. It is all right in its place in dermatology, but should not be applied indiscriminately to every case that comes to your office. It will certainly produce iodine dermatitis and entail the consequent bad results in retarding recovery.

Dr. H. Thibault (Scott): I am reminded of the story of a doctor who had taken up the subject of pellagra. After seeing one case and treating a number of patients, became so obsessed, he had never seen a patient since that did not have pellagra. He did not see much change in symptoms presented, and applied the same diagnosis repeatedly.

In regard to the frequency of iodine dermatitis in connection with the usual run of patients, they do not usually come back for treatment.

A negro woman was once questioned by an officer of the law, who was securing evidence in regard to a shooting scrape. He asked the witness what she saw and what took place at the time. She replied, "I nebber seen nuthin but dat ar six-shooter what dat white man had. I habn't gone back dar since!" In this case he had not been back since and "never saw nuthin but dat ar iodine dermatitis."

Dr. Douglass (closing): I do not believe that I have anything further I wish to add. I thank the gentlemen for their interesting and instructive discussion of this paper.

HOOKWORM.*

By S. J. McGraw, M. D.,
El Dorado.

In the discussion of this greatly neglected and alarmingly prevalent disease, we will not attempt to go into its history, for that is well known, at least in recent years, but will consider only its diagnosis and treatment.

There exists today a widespread prejudice against hookworm disease; the people don't like to have it and many physicians treat the matter as a joke. You get along all right with your patient until you suggest hookworm, then at once he betrays by his manner that his veracity has been questioned, and that his reputation as a gentleman and law-abiding citizen has been assailed; he does not object to other infectious diseases of the bowels, for instance, typhoid or appendicitis—it's honorable to have appendicitis—nor does he object seriously to other varieties of worm; but hookworm—not I. So the physician who undertakes to diagnose and treat this disease will find himself considerably handicapped by this prejudice.

Before taking up the symptoms of hookworm disease, in order that *we* may not misjudge or underestimate its real worth, let me quote from Dr. Harris of Georgia, who characterizes it as "The most common of all the more severe diseases of the entire South," and says, "In no other disease does the victim suffer so long; in no other condition is he for such a period a menace to those about him, and in no other malady of such gravity is treatment so rapidly and surely successful."

The symptoms of hookworm disease vary in proportion to the severity of the infection and length of time it has existed; in mild cases there may be but slight variation from the normal; tenderness in the gastric region, with more or less disturbance of digestion, is almost common to all; in children, constantly recurring sore throat, indisposition, pains in the joints which may be mistaken for rheumatism, certainly should excite suspicion; then, as the disease progresses and becomes chronic, the symptoms become more pronounced. We have anemia, with its accom-

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panying pallor, lowered vitality, loss of energy, and retarded development, both physical and mental; the skin may have a dry, yellow tinge, the tongue coated and the appetite perverse; the patient is weak and cannot undergo much exertion, the pulse is accelerated, the vessels of the neck may be seen to pulsate, and in many cases cardiac murmur may be heard; the patient has now arrived at that stage where you can look at him and make a diagnosis.

As the case passes from the moderate to the severe form we have an exaggeration of all the symptoms mentioned; there may be no appreciable loss in weight, but the muscles are soft and flabby; it takes about all a patient's strength to walk upstairs; the pulse is rapid and the impact of the heart against the chest wall is seen with each pulsation, and in many cases there is pronounced systolic murmur. Headache is quite a common symptom in advanced cases, pronounced digestive disturbances with nausea and vomiting. I venture the suggestion that quite a number of our old cases of chronic indigestion are chronic hookworm cases, although they may have thrown off all their worms and you cannot make a positive diagnosis; yet the injury done was permanent and the patient never recovered completely.

Edema of the feet and ankles, puffiness of the face and hands, albumin in the urine of children or young adults, should certainly call for examination for hookworm.

One symptom in advanced cases that has been of interest to me is severe cramping pains in the lower bowels, which may recur at irregular intervals and with such severity as to require hypodermics of morphine to relieve; it resembles and may easily be mistaken for appendicitis.

I have in mind a lady who suffered with these attacks; her case had been diagnosed as appendicitis and that supposedly offending organ had been removed, but her attacks came on as frequently as ever. She got no relief from the operation; her feces always contained a quantity of mucus and blood and it was this that caused me to suspect and examine her for hookworm disease. The condition must have existed for a number of years with no telling how many new infections ingrafted on the original. She took four treatments varying from ten days to one month apart, and made considerable improve-

ment; her digestion got better; she could eat fairly liberally of an easily digested diet; could do some housework, and she never had another attack of cramping pains in the bowels. I have seen three cases of advanced hookworm diseases, who suffered with these attacks, that had been diagnosed and operated upon for appendicitis and got no relief from the operation; yet all three ceased having these attacks when treated.

I also have in mind the case of a child six years old. When I saw this child it was terribly emaciated—almost skin and bones—had been unconscious for several days; movements of bowels and kidneys involuntary, and was having light convulsions at intervals of every few hours. In getting a history, the mother said the child had not been well for three years, and had been going down all the time. That caused me to suspect hookworm. An examination of the feces with microscope revealed an intense infection. Here was a child who, in my opinion, was dying—and did die—of pernicious hookworm disease—nothing more, nothing less; yet it had been diagnosed, with how much correctness I cannot say, as tuberculosis, broncho-pneumonia, and cerebro-spinal meningitis.

Another case which came under my observation, and which portrays the character of hookworm disease remarkably well, was a young lady nineteen years old, the daughter of a farmer in good circumstances. The case had been diagnosed by the attending physician as pernicious malaria and was very typical. On entering the house, we passed through an adjoining room before reaching the sick room; on a bed lay three children asleep. I was struck by their appearance: they were anemic and very pale; so pale that they were almost as white as the sheets on which they lay. The health of this family had been bad for some time, and they had lost two children before this. They had moved to another place, hoping to have better health. Failing in this, they had moved back home. To the young lady we gave large doses of quinine hypodermically, and did other things recommended for pernicious malaria; but in six hours she was dead. Now, the question with me is: Why did this young lady succumb so easily to this one chill? Why had two other children in this family gone the same way? Why did not the family have better health when they moved? My answer to the

first two is, because their resistance had been impaired by previous disease, and the last, because they carried disease with them. After all was over I asked the man if he had ever had his children examined for hookworm. He said a lecturer had been through the country, had seen some of them, perhaps at school, and had pronounced them hookworm subjects and left some capsules, but he didn't know whether or not they took them! Now, we have come to the point I wish to emphasize, the point for which I have recited this case in order to emphasize: Hookworm disease is not so much a terminal disease in itself. As it predisposes to the terminal diseases by slowly, insidiously, but surely undermining the health and stealing away the vitality of its victim, so that it not only renders them more susceptible to the terminal diseases, but robs them of their power of resistance and they go easy.

Dr. Manson has said the secret in the diagnosis of hookworm disease is to suspect it. About the greatest trouble I have in diagnosing a suspected case is to get the specimen.

There are two ways in which a positive diagnosis may be made or confirmed. First, examine the feces with microscope for eggs; this is the easier and simpler; second, administer a dose of thymol and examine the stools for worms. In acute cases, especially in children, the microscopical diagnosis is easy—dead easy—you will find eggs on almost every slide. In old, chronic cases of adults you do not always find eggs, and I would not hesitate to give any such suspected case a test dose of thymol and examine the stools for worms. I have found several cases in this way which did not show eggs after repeated examinations.

A specimen for examination may be secured from any normal stool; or a purgative may be administered and specimen secured from first stool. After a purgative has been administered I would wait several days before securing specimen. If you examine a suspected specimen and do not find eggs, wait a few days and examine again. If you find eggs in any specimen, your diagnosis is positive; if you do not find eggs, your diagnosis is not necessarily negative.

The treatment of hookworm disease is fairly simple, but long drawn out, and is influenced by the condition and surroundings of the patient. In cities and towns with good sewer

systems, we hardly expect to find it, unless in people who were infected before going to town; or city people may visit in the country and become infected while there; so it is safer to make a microscopical examination of every case that presents symptoms which cannot be otherwise accounted for. I know a family of five in El Dorado—all infected and they have sewer service; two of the three children have trachoma, which seems to me is quite common in hookworm children. An efficient sewer system will take care of hookworm disease in the towns and cities, but we should not leave it all to the sewer system; infected cases should be sought out and treated.

The rural districts present the greatest difficulty, when we consider the matter with reference to its ultimate eradication. Of course, the sanitary closet, if there be such thing, is a long step in the right direction, but no closet is sanitary any longer than it is kept sanitary, and who is going to guarantee the keeper? I have been talking sanitary closets for three years to no effect. To say the least, the sanitary closet has not been made a success. If the county health officers would take the matter up vigorously with the various school boards of the different counties and have a microscopical examination made of all school children, nearly all families where infection existed could be located. Then examine every member of that family, for where you find one infected, you are apt to find others, and sometimes the entire family. I think quite a great deal might be accomplished in this manner if it were gone about systematically and carried out thoroughly. The education of the people concerning the fearful consequences of this disease, the manner in which it is conveyed and contracted, and how it may be avoided, is absolutely necessary.

We are going to need a great deal of education and considerable legislation before we get very far toward eradicating hookworm disease.

All children should be examined whether they present symptoms or not; the earlier you find it, the easier will be the treatment, and your patient will make a better recovery. Do not make the mistake of waiting until the disease has dragged your patient down to where you can look at him and diagnose it. That is the way we used to do tuberculosis. Every child living in the rural districts where hookworm is known to exist, should be examined

at least twice a year regardless of symptoms, then we would catch the infection in its acute stage and we would not have these old, chronic cases, which seldom, if ever, make a complete recovery.

In the treatment of hookworm disease, fortunately we have a specific as much so as quinin in malaria; the dose of thymol varies from ten to sixty grains, according to your patient's age and strength, and the treatment should be repeated at intervals of from one week to one month, until he is free from worms, or until you fail to find eggs; and even then it is well to examine him at intervals for a few months before pronouncing him well. The physician who treats this disease successfully must not weary in well doing, but stay on the job.

If the legislature of Arkansas should pass a law requiring every child before entering school to be examined for trachoma and adenoids, hookworm and other worms, vaccinated in one arm against smallpox and in the other against typhoid, and have this work done by men competent to do such work, it would be next to, if not equal to, state-wide prohibition.

DISCUSSION.

Dr. Fly (Little Rock): I want to say that Dr. McGraw told the entire truth so far as he went, but he did not make it strong enough to give us an idea of the levity with which this disease is usually treated. I would like to state further that I believe too little attention is paid to intestinal parasites. In the examinations that I made a few years ago for the State Board of Health, I think about 10 per cent were infected with these parasites. From 3 to 5 per cent had dwarf tapeworm.

My experience is that patients generally do not mind being told that they have tapeworm, but many object to the insinuation that unicariasis is present. I do not understand why they should be so prejudiced against this little parasite. It does not look any worse than the other; but they seem a little less sensitive on that point and take to these more kindly than to the suggestion of hookworm. Some doctors hesitate about declaring diagnosis of tapeworm, fearing that the patient will become indignant and decline treatment. It is not necessary to minutely describe to the patient your findings, especially if you have reason to believe he may feel insulted. You can go ahead with your treatment and get results.

A great many of our physicians are not supplied with microscopes. I believe that these doctors, in every case where intestinal parasites are suspected from clinical symptoms, should give patients beta naphthol, or thymol, with equal parts of sugar of milk. The dosage should be one-third of a grain of beta naphthol or thymol to one pound weight of the individual.

Just within the last three weeks I have had occasion to make some examinations here in Little Rock. One patient had been operated on for appendicitis, but did not improve any. A specimen of the feces was sent to me and I found dwarf tapeworm. At

my suggestion forty-five grains of beta naphthol were given. A week later the doctor reported that the man had gone to work and felt better than he had for a great many years. That treatment has proven entirely efficacious in the cases I have handled.

Dr. McGraw (closing): I do not know of anything further that would add interest to the discussion. I wish to thank Dr. Fly for his comment.

SURGICAL TREATMENT OF PLACENTA PREVIA.*

By E. L. Beck, M. D.,
Texarkana.

Placenta previa is a condition recognized as early as 1609 A. D., but is described as an accidental prolapse of the placenta. The earliest correct description was by Rigsby, in 1889. He defined it as the attachment of the placenta to that part of the womb that always dilates as labor advances, which still holds good, for we know placenta previa is the attachment of the placenta to the lower uterine segment.

FREQUENCY.

The frequency of placenta previa as given by different authors varies from one in three hundred to one in twelve hundred, but it is most likely that this would vary from one in eight hundred to one in a thousand. When we take into consideration that it is not at all improbable that placenta previa is the unrecognized cause of many early miscarriages, I am of the opinion that this may run even higher than one in eight hundred.

ETIOLOGY.

Concerning the etiology of placenta previa, comparatively little is known. Two factors, however, appear to favor its occurrence, diseases of the endometrium and multiparity. It occurs more often among the working classes.

Dividing the uterus into three zones, the superior, middle and inferior, the normal placenta occupies part of the superior and middle zone. In placenta previa it is found in the inferior zone. The muscular fibers of the inferior zone are arranged differently from those in the middle and superior, this being that part of the uterus which dilates and which accounts for hemorrhage in placenta previa.

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VARIETIES.

Varieties of placenta previa are partial, marginal and central. Highest mortality for the fetus is in the central type. Next highest in mortality is the marginal. Partial has been placed at 50 per cent. Mortality of the mother in placenta previa by some writers is placed at 33 to 35 per cent.

DIAGNOSIS.

Symptoms of placenta previa do not appear until after the fourth month, when the placenta is formed. Conditions to eliminate are accidental hemorrhage and incomplete abortion. In placenta previa there is no apparent cause for hemorrhage. No pain, no fever, while in the other conditions there would be constitutional symptoms or history of an accident.

Upon introducing the finger through the cervix, you find a boggy mass and pulsating blood vessels. Another condition resembling placenta previa is cervical polypi, but upon careful examination can be easily excluded.

TREATMENT.

When this condition is recognized early, there is but one procedure—rapid, and, if need be, forcible delivery. Various methods have been employed, manual dilatation of the cervix, controlling hemorrhage by version, Braxton Hicks' method. This method should be practiced only in partial or marginal cases. It can be employed with reasonable safety in partial placenta previa. It is more dangerous in marginal cases. I am of the opinion that in most such cases a vaginal Caesarean section would be decidedly preferable.

In central placenta previa the best method is abdominal Caesarean section. Where the patient has been handled in a careful manner, where the surroundings have been reasonably good, where there has been no special danger of vaginal contamination, the classical Caesarean section is the operation of choice, as it can be done quicker and with greater ease than any other operation. In contaminated cases we have for the safest course extra peritoneal Caesarean section. This is a hard operation and requires more time, but can probably be done with less hemorrhage and is usually reasonably safe when done at the hands of an experienced and capable operator.

Case No. 1. Mrs. D, age thirty-three years, mother of one child, age two and a half years. Came to hospital on account of pernicious

vomiting. According to her history, she was advanced four and a half months. I attempted to empty the contents of the uterus with view of relieving the vomiting. Immediately upon attempting to dilate, I encountered the placenta previa. The hemorrhage was extreme. I made a section of the cervix and in this way I made a quick delivery and by so doing we were barely able to save the life of the mother.

Case No. 2. Mrs. K, age twenty-two, mother of three children. About five months advanced. Began to have hemorrhage soon after the fourth month. Had some hemorrhage each day. Some days very little, at other times quite a bit. I saw her with her brother, who was a physician. For some time we could not decide between an attempt to miscarry and placenta previa, but after some delay we decided that something must be done, and in the attempt to deliver, found that we were dealing with placenta previa. In this case I succeeded in delivering by cervical dilatation and left the patient in very good condition.

The above cases are cited in defense of the two contentions: First, that a goodly number of miscarriages are results of placenta previa; second, that oftentimes it is much better and safer to do a vaginal Caesarean section rather than attempt to dilate a rigid os.

Case No. 3. Mrs. P, age thirty-four, mother of two children, ages, respectively, ten and six years. Eight months advanced. General condition good. Developed a profuse hemorrhage on slight exertion. She was seen immediately by a physician and diagnosed as placenta previa. Was kept at rest in bed for about two weeks, at which time her condition seemed perfectly good. Immediately upon attempt to resume her activity, she developed a second hemorrhage not less than the first. On the following day she was removed to the hospital, where we attempted to prepare her for an emergency, but intending to hold her under observation and await further developments. A very careful attempt at preparation created a most profuse and even dangerous hemorrhage. We immediately determined this to be the expected emergency and I then abandoned the vaginal preparation and prepared her for an abdominal Caesarean section, which I did immediately.

I succeeded in delivering the entire contents of the uterus without excessive loss of

blood and with perfect safety to the life of both mother and child. The baby was a healthy, vigorous youngster and has made as good progress as any baby I know.

I will not attempt to give the detail or technic of this operation, other than to say that I made use of the classical operation in this case. The following chart will show the progress made by the mother:

Second day: Temperature, 99 to 100½; pulse, 74 to 92; respiration, 18 to 24.

Third day: Temperature, 99½ to 100½; pulse, 88 to 100; respiration, 20 to 24.

Fourth day: Temperature, 98 to 100; pulse, 84 to 88; respiration, 20 to 22.

Fifth day: Temperature, 98 to 100; pulse, 84 to 98; respiration, 18 to 20.

Sixth day: Temperature, 98 to 100½; pulse, 86 to 94; respiration, 18 to 22.

Seventh day: Temperature, 98 to 100½; pulse, 86 to 92; respiration, 20.

Eighth day: Temperature, 98 to 98½; pulse, 86 to 96; respiration, 18.

Ninth day: Temperature, 98½ to 100; pulse, 82 to 98; respiration, 18.

Tenth day: Temperature, 99 to 100; pulse, 94 to 98; respiration, 18.

After the tenth day temperature, pulse and respiration were entirely normal, and on the fifteenth day succeeding the operation patient was removed from the hospital to her home.

I offer the report on this case in justification of my former contention that it is far safer to do a Caesarean section under favorable conditions than to attempt a forcible dilatation and forcible delivery by the usual methods at the great risk of the extreme hemorrhage which is sure to follow.

TONSILLITIS—THE LOCAL TREATMENT.

Here, very briefly, is my experience with tonsillitis, and, in a general way, my course of treatment:

The diagnosis, as a rule, is readily made, of course. The duration of the attack will depend upon the treatment; in a large proportion of the cases treated by me, it is cured in from twenty-four to thirty-six hours. I proceed as follows:

On my first visit I swab the throat with a 10 per cent solution of nitrate of silver; and not only do I paint the tonsils, but also the anterior and posterior pillars and the uvula. These details are important. Internally, I

give calomel, one-sixth grain every hour, for six doses (in the evening), also the following mixture:

Tincture of ferrie chlorid, m. xxx
Potassium chlorate grs. x
Glycerin drs. iii
Water, enough to make ozs. iii

Directions: Give one teaspoonful every hour.

This is the promptest and most reliable cure I know of.

To prevent tonsillitis, always wear rubber overshoes when going out in damp weather.—V. P. Pisula, in *Clinical Medicine*.

Water should be allowed freely in rheumatic fever.

Emetine given in small doses frequently repeated is one of our best expectorants.

Emetine given hypodermically in one-half-grain doses is a very efficient hemostatic.

Emetine is of value only in amebic dysentery. In purely bacillary cases it is of no value except for differential diagnosis.

Eczematoid ringworm of the toes and fingers will yield readily to benzoic acid ointment.

Dover's powder is the safest remedy in the milder types pneumonic delirium. Potassium bromid and chloral increase cyanosis depress the heart too much.

Quinin will not check a malarial paroxysm after it has begun, and it is best to wait until the sweating or fever-free period, when it acts on the youngest forms of the parasite.

S. West considers cannabis indica the best hypnotic in nephritis. Too much morphin is dangerous. *Too much* morphin is dangerous in *any* condition, not only in nephritis.

When sodium salicylate in rheumatic fever causes gastro-intestinal disturbances, the dose should be given more frequently in smaller amounts, well diluted.

Capsicum given freely every two or three hours as a heart stimulant is of great assistance in alcoholism and after the withdrawal of morphin. It may be administered in soups and liquids, as strong as can be swallowed without too much discomfort.—Critic and Guide.

THE JOURNAL

OF THE

Arkansas Medical Society

Owned and controlled by the Arkansas Medical Society and published under the direction of the Council.

DR. WILLIAM R. BATHURST, Editor.

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All communications to this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

Address:

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810 State Bank Building,
Little Rock, Ark.

ADVERTISING RATES.

Upon request, a schedule of rates will be furnished.

ANONYMOUS COMMUNICATIONS.

Anonymous communications will not appear in the columns of this Journal, no matter how meritorious they may be.

Editorials.

DID YOU BITE?

"Do you want five dollars? If so, and if you are a sufficiently prominent physician, the 'patent medicine' interests will gladly send it to you. Possibly it will be for a mail-order diagnosis and treatment. For example: You may receive a letter from a lady in some outlying country town who says that she has heard of your skill in treating diseases peculiar to women. She has a daughter who is suffering from dysmenorrhea, menorrhagia, or what not, and she is afraid that the girl will 'go into consumption.' Enclosed please find a money order for five dollars. Will you not kindly send her a prescription (preferably in liquid form) for the purpose of helping her daughter's condition? Of course, diagnosing disease in and prescribing for patients one has never seen will hardly qualify as the scientific practice of medicine. But the 'patent medicine' interests are apparently willing to part with all the five-dollar bills that are necessary in order to obtain these long-distance prescriptions and diagnoses. Possibly, however, a variant is tried. You may be called up by 'phone and a man will tell you that his wife is suffering from some ailment peculiar to her sex and desires to be

operated on. What will you charge for the operation? You may mildly suggest that this question cannot intelligently be answered until you have seen the lady and gone into the case thoroughly. Then the gentleman at the other end of the wire will ask you whether it is not a fact that you charge according to the ability of the patient to pay, rather than according to the seriousness of the operation. Or possibly the scheme may have yet another angle. If you are a rather well-known internist or a gynecologist of note, an attempt may be made to get you to write a prescription containing, as at least one of the ingredients, *viburnum prunifolium*—a preparation not unknown to the 'patent medicine' world. Many other changes are being rung, for this is a time of stress with 'patent medicine' fakery, and in order to defend their nefarious trade they are seeking to manufacture evidence of the *argumentum ad hominem* type. Such evidence may be considered valuable in prosecuting libel suits against the medical profession."—Journal A. M. A., February 19, 1916.

BULLETIN No. 3.

DEAR DOCTOR:

Advertisements are accepted for publication in our Journal for two purposes:

FIRST: To derive an income.

As a joint owner in this Journal you have a personal interest in all the advertisements and in the results our patrons receive.

SECOND: To furnish information and data for your convenience in your professional as well as home life.

When looking through these pages, if you do not find what you want, please write us or our central office, *The Co-operative Medical Advertising Bureau, 535 N. Dearborn Street, Chicago*, and tell us your needs.

The Ohio State Medical Journal puts this request to its readers very pertinently. It says:

"Don't permit anything to prevent you from reading closely the advertising announcements in this issue. There are many things in these advertising pages you should know; and be sure to keep these advertisers in mind, when you need something, or are looking up institutions for the reference of patients. These advertisers would not be

there if they were not reliable. Your support of our advertisers *protects* you."

By the way, *The Co-operative Advertising Bureau* is conducted under the auspices of the American Medical Association. Therefore, the Bureau has the advantage of having at first hand all the information collected from many sources.

Your interest in the advertising pages, and your inquiries, are requested.

Editorial Clippings.

THE PHYSICIAN IN COURT.

Among the accidents to which every medical man is liable is that of being called upon to testify in a court of law. The figure cut by a physician on the witness stand varies with his mental make-up. Those whose mental balance is most perfect usually make the best witnesses. The general principles which should be borne in mind by anyone, physician or otherwise, who is called upon to face an attorney, in these circumstances are so well expressed in the following quotation from an address by J. W. Courtney (Boston Medical and Surgical Journal, volume 174, page 1) that no apology is needed for its reproduction:

"The first thing the waiting medical witness should be wise enough to do, is to take his tone from that of the court. Upon the stand the witness' manner should never be flippant, nor should it bear the stamp of spurious ease. His answers to counsel should be rigidly responsive, and he should never volunteer a statement when no question is before him. He should have prominently in mind the fact that directly he steps upon the stand he is a servant of the commonwealth. This does not mean, however, that he is in any sense an advocate; quite the contrary. Therefore, he should always refrain from arguments with counsel. He will find it difficult, very difficult, at times to give the desired 'yes' or 'no' answer, but it is always better to try to do so. Witness will lose nothing by so doing, because both the court and his own counsel will see to it that he has later an opportunity to amplify his statement to his entire satisfaction. His language should represent an effort to meet with the understanding of the twelve men who will ultimately decide the case. He should not keep one eye

on his own counsel and the other on his cross-examiner. His whole attention should be directed toward the jury. He should not constantly appeal to the court when crowded by legitimate cross-questioning, and above all things, he should never allow his voice to sink to an inaudible murmur."—Colorado Medicine.

DRAINAGE IN ABDOMINAL OPERATIONS.

L. W. Swope, in *The American Journal of Obstetrics* for November, 1915, states his belief that more stress should be laid on the deleterious effects of protracted abdominal drainage than hitherto has been the case in literature. His own practice is to remove drainage early in all patients who are slow to react from an abdominal operation. Gauze is never allowed to remain in the abdomen for a period exceeding twenty-four hours. In gall-bladder surgery, when the pancreas is involved in the pathological process, he drains the common duct with a rubber tube, which, however, is never left in longer than six or seven days. When possible, instead of draining through the common duct, he drains through the gall-bladder or cystic duct and closes the opening in the common duct. When drainage offers any hope of cure, the period referred to is sufficient, and by thus limiting the drainage the operator minimizes the possibility of fistula formation, with the consequent exhausting and occasionally even fatal effects.—*New York Medical Journal*.

Abstracts.

BLOOD TRANSFUSION.

While the technic of blood transfusion has been much simplified by the use of the syringe cannula system, Edward Lindeman, New York (*Journal A. M. A.*, February 26, 1916), says there is a tendency on the part of some to overlook details of the work and some may resort to anti-coagulants or inferior methods. The attempt to simplify the method still more has caused the sacrifice of some important points of merit, and the operative procedure as a life-saving measure ought to be regarded as something more than an injection of saline fluid or salvarsan administration. We should discourage the tendency to skip necessary de-

tails. In order for any therapeutic measure to be in favor, it must be free from danger, and Lindeman takes up the problem of the reactions to transfusion to analyze their cause and show the way to avoid them. Where hemolysis occurs, even if death does not follow, the procedure is robbed of its therapeutic value. When no blood pigment appears in the urine, the danger is practically nil. In the last 150 transfusions performed by the syringe cannula system, the preliminary blood tests have been personally supervised by him in all but nine instances. There were in all sixteen cases of chills, followed by a rise of temperature. These results are shown in a table. In the technic of blood transfusion by the syringe cannula system, the blood is outside the body for a period between six and ten seconds, regardless of the amount transfused. It passes through a minimum amount of foreign material, embolism or clotting never occurs, syringes are thoroughly cleaned after every filling, and anti-coagulants or foreign substances are never employed. There is no leakage of air or no stopcocks or valves about which blood may clot. He offers the following conclusions from his experience: "1. The preliminary hemolytic and agglutinin tests, when properly performed, are reliable. 2. Incidents of hemolysis in transfusion can be eliminated entirely. 3. The reactions which follow transfusion when accurate tests are made are eliminated in all except 9 per cent of the cases. In this 9 per cent of the cases, chills and fever alone occur. When the quantity is 800 c.c. or less, chills and fever do not occur. 4. By careful, accurate and complete hemolysis and agglutinin tests, and when the work is done skillfully, blood transfusion is robbed of all danger attending its use. This marks a step in advance because of the comparative simplicity of application."

NAUSEA OF PREGNANCY.

J. C. Hirst, Philadelphia (Journal A. M. A., February 26, 1916), reports his experience with the use of corpus luteum extract in the nausea of pregnancy. His employment of the extract was based on the presumption that there is more than a coincidence between the formation and disappearance of the corpus luteum of pregnancy and the cessation of the nausea. It is not unreasonable, he thinks, to suppose that there is sufficient absorption

from the corpus luteum to account for the disappearance of the nausea, especially when one realizes that the nausea begins to diminish at the time when the corpus luteum is most fully developed in pregnancy. Acting on this idea, he has been giving it hypodermically in doses of 1 c.c. daily, which he thinks is probably too small. His experience, however, has been encouraging, every patient having improved by the hypodermic injection, intramuscularly, in every case but one (80 per cent). While the one failure shows that it cannot always be depended on, the results so far have been better than with any form of treatment, and with larger doses it may be still more efficacious.

ASPIRIN.

Acetyl-salicylic acid (nonofficial), very slightly soluble in water. It is probably unaffected in the stomach. Being dissolved by alkaline fluids, it is absorbed through the intestine. It may be given in ten-grain doses in capsules or suspended in an emulsion for the same purpose as the official salts of salicylic acid. We may write:

R Sod. salicylate.
Ammoni. salicylate, aa ʒiii.
Aq. cinnamoni, q. s., fʒiii.

M. Sig.: One teaspoonful every two hours in milk.

When there is great pain and restlessness we might write:

R Pulvis ipecac, et opii, gr. ii.
Acetphenetidini, gr. xxiv.
Acetylsalicylic acid, ʒi.
M. et ft. cap. No. 24.

Sig.: Two every two hours.

The older treatment of rheumatism is so-called alkaline treatment, and sometimes the two may be advantageously combined. Thus:

R Potas. citrate, ʒi.
Syrup ac. citric, fʒi.
Aq. menth. pip., q. s., fʒiii.

M. Sig.: A teaspoonful every four hours.

This prescription may be alternated with salicylic acid solution.

In the treatment of so-called chronic rheumatism and for the relief of joint and muscular pain, also to some extent in pleurisy, the salicylates are undoubtedly beneficial. Some clinicians go so far as to say that salicylic acid is useful as a specific in the treatment of pleural effusions. In chronic conditions the salicylates are usually given three times a

day after food, it being kept in mind that they are more or less likely to disturb digestion. Salicylates do relieve the symptoms of acute articular rheumatism. But chronic joint conditions can be rationally treated only after finding the source of the infection, and the salicylates can be looked upon merely as a means of symptomatic relief.—Hoyt's Practical Therapeutics.

Personals and News Items.

Dr. J. C. Chenault of England is in Chicago attending the medical clinics.

Dr. R. R. Dinwiddie of Fort Smith has moved to Bentonville.

Dr. J. A. Fergus has moved from Rogers to Elm Springs.

Dr. M. D. Kelly of Carthage visited in Little Rock last month.

Dr. J. P. Bremer removed from Carlisle to Point Cedar.

Dr. F. S. Watson removed from Point Cedar to Rosboro.

Dr. J. M. Daley of Arkadelphia visited in Little Rock this month.

Dr. S. M. Gates of Little Rock has moved to Monticello.

Dr. S. S. Beaty of England is attending the eye, ear, nose and throat clinics in Chicago.

Dr. Don Smith of Hope attended the laymen's missionary meeting in Little Rock last month.

Dr. E. J. Estes of Jonesboro has formed partnership with Dr. C. V. Scott of Little Rock.

F. S. Betz & Company offer \$100.00 for an idea. See their advertisement in this issue for particulars.

Dr. George F. Fletcher has moved his office from the Southern Trust Building to the Urquhart Building, Little Rock.

Be a booster for your society, your profession and your neighbor. In the end they will boost twice as hard for you.

Dr. L. J. Kosminsky, president of the Miller County Medical Society, visited in Little Rock last month.

It is our plan to give our readers what they desire. Suggestions as to how to make your Journal more useful are always welcome.

Dr. Frank B. Young has located in rooms 210 to 215, Southern Trust Building, Little Rock, and announces his practice limited to internal medicine.

Dr. Charles S. Holt of Fort Smith has been in Little Rock during the past month, giving a course of instruction in operative surgery in the Medical Department of the University of Arkansas.

Dr. H. S. Atkins, medical superintendent of the Glenwood Sanatorium, St. Louis, announces the following physicians as consulting psychiatrists: Drs. Frank R. Fry, M. A. Bliss and Sidney I. Schwab.

Your 1916 dues must be paid to your local secretary before April 1st, if you desire to maintain uninterrupted membership in your county, state and national societies. Mail your check today.

Dr. F. L. Castleberry of Little Rock has moved to Paragould. Dr. Castleberry limits his practice to diseases of the eye, ear, nose and throat and has located in the Security Bank and Trust Company Building.

Dr. E. T. Bramlit of Malvern, Dr. S. J. Albright of Bellefonte, Dr. W. N. Pierce of Tupelo, Dr. J. E. Tucker of Roland, Dr. H. W. Brewer of Clarksville, Dr. C. W. Hall of Greenwood and Dr. J. E. Johnson of Fort Smith, Dr. Earle Hunt of Clarksville and Dr. T. B. Bradford visited in Little Rock last month.

MAY 2, 3, 4 AT TEXARKANA. Make this notation on your calendar today. They are the dates selected for the fortieth annual meeting of the Arkansas Medical Society. Many of you missed the meeting in Little Rock last year, and regretted it later. This year the Miller County Medical Society is determined to have this the greatest medical meeting ever held in the State of Arkansas—scientifically, socially, and in every other way.

Here we have a great big eight-cylinder touring car. It moves quietly along, with little or no commotion, fuss or jar. When it speaks, its horn is business-like and decided, but neither blatant nor excessively loud. Here we have a little two-cylinder limpabout. It moves with a lot of racket, chortle and sputter, and when it speaks, its horn lets out a yowl that is a public nuisance. Automobiles are a good deal like men. The truly big ones make the least roar.—Puck.

ALIENISTS AND NEUROLOGISTS.

The Chicago Medical Society announces the fifth annual meeting of Alienists and Neurologists of the United States, to be held under the auspices of the Chicago Medical Society, June 19 to 23, 1916, at La Salle Hotel.

We wish to invite you to attend these meetings and participate by paper to take part in the discussion of the various subjects and other matters that may come before the conference. We hope to enlist your valuable assistance in a campaign of education of physicians and the public as to the causative forces of mental deficiency, and will appreciate your assistance. As physicians and the public have taken great interest in these meetings, the Chicago Medical Society, even though at great expense, has decided to continue these annually without expense to others.

Resolutions were passed at the meeting in 1915, requesting the governors of the various states to appoint committees to investigate the causative forces of feeble-mindedness.

Reports of these committees will be made at the meeting in 1916. The reports of the general committee will be forwarded to the governors of each state. Resolutions will be formulated by the conference that will be instructive to legislatures, to the end that reasonable laws may be passed that will in a measure, at least, be preventive of mental deficiency.

The governors and boards of administration or control are taking great interest in these meetings and giving us valuable assistance to carry forward this movement. We hope also to interest the editors of the various medical journals in this movement, and through them enlist the help of physicians. If a campaign of education were made against the causative forces of mental defectiveness as there is against tuberculosis, a wonderful amount of good would result. This subject should interest us, first, from a humanitarian standpoint; second, from an economic standpoint. The judges of our courts are acquainting themselves with mental diseases; they give us the information that a large per cent of crime is committed by mental defectives and a large percentage of the prisoners in our penal institutions are also defectives and should not have been confined to prisons of this kind, but sent to farm colonies or other reformatory institutions with proper environ-

ment. In our state asylums there are many cases of insanity which, if they had been diagnosed early, could have been cured. This is especially the case as regards dementia praecox and lues. The state would not have been burdened with the immense expense of their long confinement and their families would have been relieved of the humiliation of their commitment.

There has been no branch of medicine so neglected as the study of mental diseases and psychology.

There should be a great reform in this respect within the near future.

W. T. MEFFORD,
Secretary of Conference,
2159 Madison Street.

CIRCULAR LETTER TO FIRST AID
COMMITTEE OF NATIONAL AND
STATE SOCIETIES—APPOINTED AND
TO BE APPOINTED.

The secretary was authorized by the conference to make the survey. These national and state committees have been appointed to assist the secretary in this investigation.

The Board of Standardization has been requested that these first aid committees make their report to the secretary of the conference.

Reprints have or will be sent you from the Military Surgeon, Surgery, Gynecology and Obstetrics, for January, 1916, and one soon to be published in The Journal of the American Medical Association. These contributions outline the methods of investigation.

State committees might confine their attention to a survey of the actual conditions of first aid and accident surgery in the railroads, mines and industries in their respective states. Attention should be concentrated on a system of bookkeeping and records which will demonstrate the economic value of first aid instruction and improved methods of surgery. The exact period of disability needs thorough study in this country.

Every surgeon interested in this movement can be helpful to the state committee by co-operation in this investigation.

Officials of railroads, mines and manufacturers should co-operate.

Committees representing national associations should make a survey of the opinions

of their colleagues and, if possible, standardize the best methods employed in accident surgery.

In many instances first aid by the layman is not necessary, because the injured patient can be readily transported to an accident room or to a hospital. This is especially true in mines and industries, and perhaps in accidents occurring in cities near hospitals.

In some instances first aid must be performed by the layman, and the question is, what shall they be taught, and what material shall be provided and how shall it be distributed?

In other instances the first treatment of the wound on account of the environment of the accident cannot be much more than simple disinfection, dressing and fixation, even if the patient is seen at once by a physician or surgeon.

The object of this survey is to collect the actual facts and provide for improvement of future records so that progress may be more rapid.

Yours very truly,

JOSEPH C. BLOODGOOD,

Secretary of the American First Aid Conference,

904 North Charles Street, Baltimore, Md.

MESSAGE FROM TITUS COUNTY, TEXAS.

Some county medical societies have found it necessary to render it very plain to their patrons the difference between a night call and a day call. What a pity it is that every doctor in Titus County can't see the benefit of uniting with his County Medical Society. "In union there is strength." Lay aside your grudges and whims and come in. "United we sleep, divided we get cold and freeze. The society needs you, and you need it."

You don't need to die and have the slow horses and the long earriage tote your useless carcass across town to a hole in the ground to get left out in the cold. Rip Van Winkle wouldn't have to leave the village now to be *forgotten*. No, he wouldn't. So let us prepare against people's forgetfulness. Mix some good horse sense with our work. Mix a little better *finance* sense with our pills, powders, potions, prescriptions and professional perambulations. Don't remain outside of the society because you don't like some particular member; he may be as good as you are.

Preparedness. That word means *oodlins* to the *doctor*. It is, or should be, quite suggestive to every one of us. Are we prepared now by having prepared a long time ago? Don't we have to be everlastingly prepared to be prepared, and then are we prepared to discharge our duties as physicians to the very best?

How old are you, doctor? How long have you been hitched up in medical harness? Have you secured a *bank account* sufficiently Dardanellie should you be rendered unable to continue your regular work or no work at all, to run you till you take shipping with Sharon? These are no fool questions if some fool has presented 'em. Don't forget your dues.

The Washington County Medical County (Pa.) says: "A doctor always needs friends, and friends among the members of his own profession, as well as among the laity." "Don't be a fossil, get busy and be a live member."

WM. BEESWAX,
Secretary.

ALCOHOL AND PNEUMONIA.

The United States Public Health Service brand strong drink as the most efficient ally of pneumonia. It declares that alcohol is the handmaiden of the disease which produces 10 per cent of the deaths in the United States. This is no exaggeration. We have known for a long time that indulgence in alcoholic liquors lowers the individual vitality, and that the man who drinks is peculiarly susceptible to pneumonia. The United States Public Health Service is a conservative body. It does not engage in alarmist propaganda. In following out the line of its official duties it has brought forcefully to the general public a fact which will bear endless repetition. The liberal and continuous user of alcoholic drink will do well to heed this warning, particularly at this season of the year when the gruesome death toll from pneumonia is being doubled.

IT PAYS THE MANUFACTURER TO MAINTAIN ETHICAL STANDARDS.

The notice of the removal of the Dextri-Maltose manufacturing plant from Jersey City to Evansville, Ind., published in one of our advertising pages, deserves more than passing attention. It furnishes evidence of

the natural growth of a manufacturing enterprise which is now vacating its old factory with 18,000 square feet of floor space for a new location in the Central West and in a new plant with 300,000 square feet of floor space—sixteen times larger than the old one.

This removal from a comparatively small to a very large housing also affords striking proof that success awaits the manufacturer who produces something the physician really wants, and markets his products in accordance with the standards set up by doctors for the sale of products they use. The first commandment for the direction of the manufacturer under these standards is: "Thou shalt not offer to both physician and public, by advertising or otherwise, anything which requires medical skill to properly use."

This commandment has been ignored by some manufacturers of infant foods, who have persistently educated the public with pseudo-pediatrics, thereby tending to increase infant mortality and hampering the physician in the practice of scientific, or even rational infant feeding.

But ultimate reform in the manufacture and sale of infant foods was as inevitable as the reform that has taken place in the sale of pharmaceutical products. The day of mystery and tradition in infant feeding is passing rapidly.

The recent simplification of bottle feeding, rendering it possible, without impractical complication, for the family physician to successfully adapt the diet to the individual baby, has brought about a strong conviction that the direction of infant feeding is distinctly the proper work of the physician.

This conviction has in turn created a demand for forms of carbohydrate foods which can be freshly prepared in exact proportions to meet clinical indications; and for their sale without directions for use, so that the physician can personally control the administration of the food.

The firm, which announces herewith its removal from the East to larger opportunities in the West, early recognized the requirement by the medical profession for a product used in infant feeding, made and sold exclusively for physicians, with no appeal, nor information to the public.

This firm deserves no special commendation for the course it has pursued, it being its duty to follow it. Reference to the sales

of Dextri-Maltose is made simply to show that it is remunerative for manufacturers to treat the medical profession fairly.

Provisional Program.

OF THE
FORTIETH ANNUAL MEETING
OF THE
ARKANSAS MEDICAL SOCIETY.
TEXARKANA, MAY 2-3-4.

"NERVOUS CONDITIONS ASSOCIATED WITH PELVIC DISORDERS"—

By G. H. Moody, San Antonio, President State Medical Association of Texas.

Discussion to be opened by Frank B. Young, Little Rock; T. F. Kittrell, Texarkana.

"THE TREATMENT OF DIABETES BY ALLEN'S METHOD"—

By A. H. Cook, Hot Springs.

Discussion to be opened by Orvis Biggs, Hot Springs.

"PELVIC FASCIA"—

By H. H. Kirby, Little Rock.

Discussion to be opened by D. A. Rhinehart, Associate Professor of Anatomy, University of Arkansas, Medical Department.

"ARTERIOSCLEROSIS"—

By Frank B. Young, Little Rock.

Discussion to be opened by G. H. Moody, San Antonio, and L. P. Gibson, Little Rock.

"SPLENECTOMY, WITH A REPORT OF CASE"—

By W. F. Smith, Little Rock.

Discussion to be opened by E. P. Bledsoe, Little Rock.

"NEPHROLITHIASIS, WITH REPORT OF CASES"—

By J. P. Runyan, Little Rock.

Discussion to be opened by H. H. Kirby, Little Rock; Anderson Watkins, Little Rock.

"A FURTHER CONSIDERATION OF THE MANAGEMENT OF FRACTURES"—

By Jas. A. Foltz, Fort Smith.

Discussion to be opened by St. Cloud Cooper, Fort Smith; W. F. Smith, Little Rock.

"TREATMENT OF GENERAL PERITONITIS"—

By Chas. S. Holt, Fort Smith.

Discussion to be opened by E. F. Ellis, Fayetteville; M. E. Foster, Fort Smith.

"DIFFERENTIATION BETWEEN UPPER (CENTRAL) AND LOWER (PERIPHERAL) MOTOR NEURON INVOLVEMENT"—

By G. B. Fletcher, Little Rock.

Discussion to be opened by C. R. Doyne, Little Rock.

"REPORT OF A CASE"—DISLOCATION OF THE ELEVENTH DORSAL VERTEBRA; FRACTURE OF THE TENTH, ELEVENTH AND TWELFTH SPINOUS PROCESS OF THE DORSAL VERTEBRA; PARALYSIS OF BOTH LEGS—

By J. M. Lemons, Pine Bluff.

Discussion to be opened by R. C. Dorr, Batesville.

“PREVENTION OF DEAFNESS”—

By Wm. Breathwit, Pine Bluff.
Discussion to be opened by Thos. H. Cates,
Little Rock; I. H. Erwin, Newport.

“EXPERIENCES IN CATARACT EXTRAC-
TION”—

By H. Moulton, Fort Smith.
Discussion to be opened by F. Vinsonhaler,
Little Rock; J. W. Seales, Pine Bluff.

“EXTERNAL OPERATIONS OF THE FRONTAL
SINUS”—

By R. H. T. Mann, Texarkana.
Discussion to be opened by Robert Caldwell,
Little Rock; J. H. Buckley, Fort Smith.

“MAXILLARY SINUSITIS”—

By W. T. McCurry, Little Rock.
Discussion to be opened by T. E. Fuller, Tex-
arkana; J. W. Ramsey, Jonesboro.

“PLASTIC SURGERY OF THE NOSE AND
EYELIDS”—

By L. H. Lanier, Texarkana.
Discussion to be opened by John G. Watkins,
Little Rock; D. R. Dorente, Fort Smith.

“EROTOMANIA”—

By Thos. Douglass, Ozark.
Discussion to be opened by C. S. Pettus, Little
Rock.

“COMMON FALLACIES IN THE TECHNICAL
DIAGNOSIS OF INDIGESTION”—

By E. D. Holland, Hot Springs.
Discussion to be opened by T. M. Fly, Little
Rock; A. G. McGill, Little Rock.

“MY MEDICAL TREATMENT OF APPENDICI-
TIS”—

By W. M. Wear, Paris.
Discussion to be opened by W. H. Gibson,
Webb City; R. S. Thompson, Spielerville.

“A CASE OF UNCINARIASIS WITH PYLORO-
SPASM AND HYPERCHLORHYDRIA”—

By T. M. Fly, Little Rock.
Discussion to be opened by C. W. Garrison,
Little Rock.

“METASTATIC ARTHRITIS”—

By A. G. Lee, Texarkana.
Discussion to be opened by Nettie Klein, Tex-
arkana; J. P. Runyan, Little Rock; E. H.
Martin, Hot Springs.

“THE DANGERS OF PATHOLOGICAL DEVEL-
OPMENTS”—

By R. L. Saxon, Little Rock.
Discussion to be opened by W. F. Mangles-
dorf, Little Rock; J. I. Scarborough, Little
Rock.

“DYSENTERY”—

By Thos. F. Hudson, Luxora.
Discussion to be opened by W. H. Deaderick,
Hot Springs; M. L. Norwood, Lockesburg.

“CARRIERS OF EPIDEMICS”—

By C. W. Garrison, Little Rock.
Discussion to be opened by A. G. Lee, Texar-
kana; A. F. Hoge, Fort Smith.

“ECLAMPSIA”—

By J. W. Melton, Slocomb.
Discussion to be opened by M. D. Ogden, Little
Rock; J. B. Roe, Newark.

“RADIUM—ITS PHYSICAL PROPERTIES AND
THERAPEUTIC VALUE”—

By Dewell Gann, Jr., Little Rock.
Discussion to be opened by A. M. Zell, Little
Rock.

“THE RELATION OF EDUCATION IN SEXUAL
UNION TO EUGENICS AND CONJUGAL HAP-
PINESS”—

By C. S. Pettus, Little Rock.
Discussion to be opened by Chas. H. Cargile,
Bentonville; R. H. T. Mann, Texarkana.

“BLOOD PRESSURE—ITS SIGNIFICANCE,
ETC.”—

By E. M. Watts, Texarkana.
Discussion opened by O. M. Bourland, Van
Buren.

“ONE WAY OUT”—

By Don Smith, Hope.
Discussion to be opened by H. H. Niehuss, El
Dorado.

“UNPARDONABLE SIN”—

By Morgan Smith, Little Rock.
Discussion to be opened by H. D. Wood, Fay-
etteville.

SUBJECT TO BE ANNOUNCED LATER—

By Howard P. Collings, Hot Springs.
Discussion to be opened by ———.

“SOME PRACTICAL POINTS ON THE DIAG-
NOSIS AND TREATMENT OF ECZEMA”—

By William R. Bathurst, Little Rock.
Discussion to be opened by D. Goldstein, Fort
Smith.

PUBLIC MEETING

Wednesday Evening, May 3.

“THE HEALTHY CITIZEN”—

By J. T. Clegg, Siloam Springs.

“PROPHYLAXIS IN TUBERCULOSIS”—

By John Stewart, Booneville.

“MEDICAL INSPECTION OF PUBLIC
SCHOOLS”—

By M. V. Russell, Hope.

“A NEGLECTED PHASE OF PREVENTION OF
DISEASE”—

By T. B. Bradford, Cotton Plant.

New and Nonofficial Remedies.

Since publication of New and Nonofficial Remedies, 1915, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with “New and Non-official Remedies:”

LYSTER'S PREPARED CASEIN DIABETIC FLOUR.—Milk casein to which has been added a leavening mixture, sodium chlorid and saccharine. Used in the form of muffins in diabetes, etc. Lyster Bros., Andover, Mass. (Journal A. M. A., February 26, 1916, p. 653).

ANTISTREPTOCOCCUS SERUM RHEUMATICUS, SQUIBB.—Produced from strains of streptococcus from the joints and blood of cases of rheumatism. The serum is intended for use in cases of acute articular rheumatism. E. R. Squibb & Sons, New York (Journal A. M. A., February 26, 1916, p. 653).

Propaganda for Reform.

HYDROCHLORITES IN INFECTED WOUNDS.—Dakin points out that he claims no credit for the "discovery" of the "new antiseptic." He explains that the "new antiseptic" was discovered by Berthollet in 1788. The solution used by Dakin and others is essentially the well-known Labarraque's solution or solution of chlorinated soda. The claims as to the efficiency of the various modifications which are being used in France and England are decidedly contradictory. The one conclusion which all results with the various hypochlorite solutions appear to justify is that hypochlorites, whether applied in an acid solution, in an alkaline solution or in a neutral solution, are of genuine value in the treatment of infected wounds (Journal A. M. A., February 5, 1916, p. 430).

OXYBON DECLARED FRAUDULENT.—On January 15, 1916, a fraud order was issued by the postmaster-general against the Oxybon Company, Chicago. The oxybon was one of the gas-pipe frauds, which included the oxydonor, the oxypathor, and the oxygenor (Journal A. M. A., February 12, 1916, p. 526).

THE THERAPEUTIC VALUE OF THE HYPOPHOSPHITES.—At the request of the Council on Pharmacy and Chemistry, Dr. W. M. Marriott, Johns Hopkins University, has examined the evidence for and against the therapeutic value of the hypophosphites. Experiments were carried out to determine the "food" value of hypophosphites. The hypophosphites were introduced into medicine by Churchill in 1858 on the basis of an incorrect theory and utterly insufficient and inconclusive clinical evidence; their use has been continued without justification by any trustworthy evidence for their efficiency. By actual trial on human subjects Marriott shows that at least 85 per cent of the ingested hypophosphites are excreted unchanged. Further, he holds that there is no proof that the remain-

ing 15 per cent is available to the organism. It is doubtful if there are any conditions in which the body suffers from lack of phosphorus. Marriott concludes that there is no reliable evidence that hypophosphites exert a physiologic effect; it has not been demonstrated that they influence any pathologic process; they are not "foods." If they are of any use, that use has never been discovered (Journal A. M. A., February 12, 1916 p. 486).

THE EFFECT OF OPIUM ALKALOIDS ON RESPIRATION.—D. I. Macht has reinvestigated the effect of opium alkaloids on respiration. He divides the alkaloids of opium in two classes: In the one class is morphin, the prominent sedative alkaloid, which may not interfere with efficient respiration when the dose of the drug is small. In contrast with this are narcotin, papaverin, narcein, thebain and cryptopin, all of which are stimulants and in large doses are excitants of the respiratory center. Codein belongs to the morphin class, though in large doses it may also excite the respiratory center. The action of mixtures of opium alkaloids is a summation of their individual effects. It thus appears that if the object sought is a reduction of the labored activity of the respiratory muscles in a given case, the drug opium itself or mixtures of its alkaloids are to be preferred to morphin alone. If, on the other hand, it is desired to diminish the excitability of the cough reflex mechanism, it seems that a simple substance, as morphin or dodeine, is to be preferred (Journal A. M. A., February 12, 1916, p. 514).

FERMENTED MILK.—While there is no conclusive evidence that bacillus bulgaricus is able to establish itself in the intestine in such a way that other bacteria are driven out, it is undoubtedly true that in many cases marked improvement has resulted from the ingestion of milk cultures made from it. It is by no means certain, however, that the results which have been obtained by the use of milk cultures have been attributable to any peculiar virtue in the organism itself. The beneficial effects of a sour-milk diet is attributable, perhaps, not so much to the bacteria contained in the milk as to the milk itself, which provides material for an acid fermentation in the intestine. Fermented milk is so well tolerated in many cases that their use should in

general be encouraged from the standpoint of nutrient values, quite apart from the problematical "auto-intoxication" propaganda (Journal A. M. A., February 19, 1916, p. 574).

DIARSENOL.—Diarsenol, Synthetic Drug Company, Toronto, Canada, is said to be chemically identical with salvarsan. It has not been examined in the A. M. A. Chemical Laboratory, nor do any reports of trials appear to have been published which demonstrates its value or safety. As salvarsan is covered by United States patent, the American agents for salvarsan will probably object to the sale in the United States of a substitute (Journal A. M. A., February 19, 1916, p. 590).

GENOFORM.—Genoform, advertised as a remedy for rheumatism, gout, neuralgia, etc., is marketed with the claim that it is split up in the intestines into salicylic acid, acetic acid and formaldehyde. The statement of composition is too indefinite to permit any real insight into its possible reactions, but even if formaldehyde is liberated in the intestines, genoform could not have the properties which are claimed for it (Journal A. M. A., February 26, 1916, p. 676).

TANLAC.—Food Commissioner Helne of Michigan reports: "A new panacea for the cure of 'all ailments of the stomach, kidneys and liver, catarrhal affections of the mucous membranes, rheumatism, nervous disorders and the like' is offered to the public under the name of Tanlac. The label on the bottle neatly avoids the pure drugs act by claiming to be only a 'tonic and system purifier.' An analysis of tanlac in the laboratory of this department shows the following: Alcohol, 16.4 per cent; glycerin, 2.0 per cent; licorice present, aloes or cascara present, gentian present, alkaloids (Berberin) trace. The presence of a trace of tartaric acid shows that wine is the base of this medicine. The 16 per cent alcohol gives it the 'kick' that makes a fellow feel good and ought to fill a long-felt want in 'dry counties.' Aloes is a laxative. Gentian is a bitter drug, so-called tonic. If the reader wants to be cured by the tanlac route at one-fourth the expense, let him get a quart bottle of good sherry wine. Then go to the local druggist and get one and one-fourth drams of glycerin and two drams each of aloes, gentian, licorice and cascara. Mix (if you wish), and you will have tanlac so

near that neither you nor the manufacturer can tell the difference. This formula will give four times the quantity found in an ordinary \$1.00 bottle of tanlac (Journal A. M. A., February 26, 1916, p. 676).

County Societies.

INDEPENDENCE COUNTY.

(Reported by Paul H. Jeffery, Sec'y.)

Batesville, February 14, 1916.—The Independence County Medical Society met in Batesville, February 7, with the following members present: Dr. M. S. Craig, Dr. J. W. Case, Dr. R. C. Dorr, Dr. J. A. Gray, Dr. C. G. Hinkle, Dr. O. J. T. Johnston, Dr. J. H. Kennerly, Dr. W. B. Lawrence, Dr. V. T. McAdams and Dr. T. N. Rodman.

Dr. T. G. Woods of Evening Shade was elected a member.

The time of meeting was changed from the first to the second Monday in February, April, June, August, October and December.

Dr. M. S. Craig had a real interesting paper on "Hysteria," and Dr. O. J. T. Johnston read a paper on "Administration of Digitalis in Heart Lesions," which brought on a lively discussion.

Members on program for April meeting: Drs. J. B. Roe, R. C. Dorr, W. B. Lawrence, V. T. McAdams, J. Hayden and W. J. Long.

MISSISSIPPI COUNTY.

(Reported by Earl E. Craig, Sec'y.)

The Mississippi County Medical Society met at Blytheville in the Business Men's Club Room, Tuesday, February 8, at 1 o'clock p. m. Members present: Drs. C. M. Harwell and O. Newton, Osceola; Drs. T. F. Hudson, McCreight and Lowry, Luxora; Drs. A. E. Turrentine, J. F. Sanders, C. C. Stevens, M. C. Usrey, W. T. Polk, S. P. Martin and Chambers, Blytheville; Dr. Earl E. Craig, Wilson; Dr. W. N. Owen, Joiner.

This was one of the most successful meetings in the history of the society, most of the afternoon being spent in discussing the business side of the profession. The society is going to grow this year in membership, attendance, activity, professional power and public influence. Every member present took part in the discussions and made an earnest plea for a plan whereby the physicians may

have a better financial protection. This will be crystallized in the form of a Physicians' Protective Association. This, of course, will mean unity and strength among themselves. After closing of all discussions, a committee was appointed by the president to formulate the plan and report at the next meeting.

Next in order was the scientific part of the program, in which Dr. W. H. Owen of Joiner read a very short but interesting paper on that one most pessimistic disease, "Pellagra." His paper was discussed by nearly everyone present, developing very wide differences of opinion. It is hoped that the time is not far distant when medical research will find the true cause of the disease whereby we may be able to place the check-rap on same.

No further business appearing, the meeting adjourned to meet at Osceola on the second Tuesday in March.

NEVADA COUNTY.

(Reported by J. B. Hesterly, Sec'y.)

The Nevada County Medical Society met in Prescott January 28, 1916. Members present: Drs. S. J. Hesterly, W. W. Rice, A. S. Buchanan, G. A. Buchanan, J. T. Sandlin, S. B. Gee and Jacob B. Hesterly.

The following officers were elected: President, Dr. S. B. Gee; vice president, Dr. J. T. Sandlin; secretary and treasurer, Dr. Jacob B. Hesterly; delegate to Arkansas Medical Society, Dr. G. A. Buchanan; alternate, Dr. J. T. Sandlin.

A number of cases reported by the members were discussed. "How the Society Might Obtain the Most Good During the Year of 1916" was discussed, after which adjournment to meet monthly hereafter.

LAWRENCE COUNTY.

(Reported by C. C. Townsend, Sec'y.)

The Lawrence County Medical Society met Wednesday, February 2, 1916, at Hoxie, with Dr. J. H. Stidham. Members present: Drs. F. D. Smith and J. W. Elders, Albia; Dr. J. W. Morris, Black Rock; Dr. J. H. Stidham, Hoxie; Drs. J. C. Hughes, J. C. Land, H. R. McCarroll, T. C. Neece, W. A. Smith, J. C. Swindle, G. M. Watkins and C. C. Townsend, Walnut Ridge.

Several cases of pruritus were reported; also one of sciatica.

Scientific program: Dr. McCarroll not having had time to prepare a paper on his subject, "Laryngo-Bronchitis," made us an informal talk on some of the inflammatory diseases of the lower respiratory passages. The doctor "loomed large" on this occasion as one of the best extemporaneous speakers in our society, receiving several "bouquets" for his excellent impromptu address. His subject was discussed at length by the members present.

Dr. J. C. Land read a paper on "Influenza" that covered the subject admirably. Nearly everybody present joined in "eussing and discussing" this disease generally, because of the fact that nearly every doctor present had suffered from it during the past few weeks.

JEFFERSON COUNTY.

(Reported by Fred C. Rowell, Sec'y.)

Pine Bluff, Feb. 8.—The Jefferson County Medical Society met in this city Tuesday, February 1. President J. M. Lemons in the chair. Present: M. A. Shelton, Wabbaseka; Eranda Hughes, A. C. Jordan, J. T. Palmer, E. C. McMullen, Leaberman, W. G. Pittman, Lemons, Pine Bluff.

The scientific program was as follows: "Report of a Case—Injury of the Right Shoulder and Following Atrophy of the Surrounding Muscle," by W. G. Pittman. "Pneumonia—Personal Experiences," by A. C. Jordan. Followed with a forceful discussion by J. T. Palmer.

We had by far the most helpful meeting we have had in a long time, and the members say they have derived much benefit.

Book Reviews.

A MANUAL OF HYGIENE AND SANITATION.—By Seneca Egbert, M. D., Professor of Hygiene and Dean of the Medico-Chirurgical College, Philadelphia. New (sixth) edition, thoroughly revised. 12 mo., 525 pages, with 141 figures and five plates. Cloth, \$2.25 net. Lea & Febiger, Philadelphia and New York, 1916.

The author has responded to this renewed opportunity by effecting such changes as were needed to represent the latest developments in a very active subject. Mankind is awakening to the unapproached importance of anything affecting the public health, and it is now expected that every physician shall

know and apply the principles of preventive as well as curative medicine. An authoritative work covering the essentials of this great subject clearly and briefly therefore interests medical students and practitioners, as well as specialists in hygiene and sanitation.

DISEASES OF THE SKIN AND THE ERUPTIVE FEVERS.—By Jay Frank Schamberg, M. D., Professor of Dermatology and Infectious Eruptive Diseases in the Philadelphia Polyclinic and College for Graduates in Medicine. Third edition, revised. Octavo of 585 pages, 248 illustrations. W. B. Saunders Company, Philadelphia, 1915. Cloth, \$3.00 net.

The writer has had occasion to review a former volume of this book and it is with great pleasure we note the more important advances in dermatology made since the publication of the last edition.

The book closes with a separate chapter on "Acute Eruptive Fevers," and owing to the importance attaching to their diagnosis, they are given greater space than is usually accorded to them in books on skin diseases.

The numerous illustrations will be found quite helpful to the student and practitioner.

PRINCIPLES AND PRACTICE OF OBSTETRICS.—By Joseph B. De Lee, A. M., M. D., Professor of Obstetrics at the Northwestern University Medical School. Second edition, thoroughly revised. Large octavo of 1087 pages, with 938 illustrations, 175 of them in colors. W. B. Saunders Company, Philadelphia and London, 1915. Cloth, \$8.00 net; half morocco, \$9.50 net.

This book shows painstaking revision over the first edition two years ago.

Considerable new matter and new illustrations are given. The chapters on the Aberrant pregnancy reaction, on "Twilight Sleep," on "dry labor," labor in old primiparae, blood pressure and extra peritoneal Caesarean sections are much enlarged. Diagnosis has been made a particular feature. The subject-matter is divided into three parts: The Physiology of Pregnancy, Labor, and the Puerperium; the Pathology of Pregnancy, Labor, and the Puerperium and Operative Obstetrics. The author considers rubber gloves essential for aseptic work.

A TEXT-BOOK OF PATHOLOGY.—By Alfred Stengel, M. D., Professor of Medicine, University of Pennsylvania, and Herbert Fox, M. D., Director of the Pepper Laboratory of Clinical Medicine, University of Pennsylvania. Sixth edition, reset. Octavo of 1045 pages, with 468 text-illustrations, many in colors, and 15 colored plates. W. B. Saunders Company, Philadelphia and London, 1915. Cloth, \$6.00 net; half morocco, \$7.50 net.

In the preparation of this (sixth) edition, Dr. Stengel was fortunate in having the co-

operation of Dr. Herbert Fox, whose active interest in general and comparative pathology and in clinical pathology peculiarly fit him for collaboration in a book designed especially for the needs of students and practitioners preparing for or engaged in the work of practical medicine.

The extensive revision made in this volume and the new illustrations make the whole work a new and greatly improved form, and bring the work fully up to date.

SURGICAL OPERATIONS WITH LOCAL ANESTHESIA.—Second edition. By Arthur E. Hertzler, A. M., M. D., Ph. D., F. A. C. S. Surgeon to the Halsetad Hospital, Kansas; Swedish Hospital, Kansas City, Mo.; General Hospital, Kansas City, Mo. 327 pages, 173 illustrations. Surgery Publishing Company, New York. Cloth-bound. Price, \$3.00.

The rapid sale of the first edition covering minor surgery, and the demand for a more complete work upon the subject covering both major and minor surgical work, has induced Dr. Hertzler to present this second volume, which for completeness as to detail and price we believe places it in a class by itself among those text-books upon this most interesting and growing subject.

Dr. Hertzler's vast surgical experience and his work with local anesthesia fits him as an authority upon this subject and thus the second edition of his book places within the hands of the doctor a manual which for completeness and comprehension, particularly recommends it.

From a review of this book Dr. Hertzler seems to have overlooked no point of major or minor importance. The large number of illustrations clearly places up to the eye of the reader the text of the book, and both the practitioner and surgeon will appreciate this work as a reliable guide in their operation work under local anesthesia.

A TREATISE IN THE PRINCIPLES AND PRACTICE OF MEDICINE.—By Arthur R. Edwards, M. D., Professor of the Principles and Practice of Medicine and Clinical Medicine, and Dean of the Northwestern University Medical School, Chicago. New (third) edition, thoroughly revised. Octavo, 1022 pages, with 80 engravings and 23 full-page plates in colors and monochrome. Cloth, \$6.00 net. Lea & Febiger, Philadelphia and New York, 1916.

The merit of Prof. Edwards' work has won the practical recognition of a demand for a third edition. It is the product of an experienced physician, a notable teacher, and an unsparing worker. No less efficient combination in the person of one man could ade-

quately exhibit present-day medicine in a single volume of convenient size. This he has done, and in excellent perspective, making a well-proportioned book, properly directed, as he says in the preface; that is, with everything necessary, and everything leading up to the final object of medicine, namely, treatment. Thorough systematization is employed for brevity and ease of consultation, and for the even more important advantage thereby secured that facts arranged in their natural order lead into each other and impress the underlying reasons on the reader's mind. Critical study of his own work, and careful consideration of the reviews, have led the author to adhere to the plan and features that have proved so popular, but he has spared no labor in improving it to the utmost. The work has been practically rewritten to secure increased clearness and conciseness. All the real advances throughout this immense domain have been incorporated. Particular attention has been given to therapeutic details in accordance with the recent awakening of the profession to the importance of logical treatment. Numerous new preparations and modified dosages, particularly for children, are explicitly specified.

THE CALL OF THE COUNTY SOCIETY.

Now that vacation is over and the usual routine has again been taken up, let us not forget the claims of our county society. Judging from the dearth of the county society reports, there has been very little activity during the summer months, and it is high time that we again get busy. The refreshing influence of vacation and the invigorating weather of the fall and winter months should enable us to make the forthcoming meetings of our society successful in the extreme. We owe a great deal to our county society. If it has been successful, we have been benefited by it in many ways; if it has not been successful, we are largely at fault. In either instance we are called upon to acknowledge and repay an obligation. Social functions, the theater, and even the movies, may entertain us, and from them we may even profit; but they are all optional. The county society, if it is managed properly, will invariably both entertain and profit us; it is *not* optional. By all means, let us resolve to regularly attend our county society meetings, beginning with the very next one.—Texas State Journal of Medicine.

In the third number of International Clinics, 1915, Brady of New York pointedly discusses the present system of therapeutic prescribing as enacted by the internist of today. He states: "If medical practitioners were as careful and exacting in their technic as surgeons are, we fancy general practice would be a more attractive field than it is at present; medicine would retain the confidence of the people if doctors themselves could acquire a precise therapeutic technic, and there is no reason why such technic may not be acquired, unless it be indifference, for the scientific basis of pure medicine is fully as well established as is the scientific basis of surgery. Every physician ought to take a critical inventory of his therapeutic stock in trade at least once a year, and find out just how much junk and trash has accumulated on his shelves or in his mind. By going over the list with a determination to simplify and cast out wherever possible, one will generally find much food for thought. Thought leads to study, and study means perfection of technic. The satisfaction and pleasure derived from medical practice are in a large measure determined by the quality of one's therapeutic technic." — Journal Michigan Medical Society.

Personal items and news notes are solicited for each issue. If you are in possession of any items that are of interest to the profession, will you not kindly impart them to us for use in The Journal?

BURNHAM'S SOLUBLE IODIN.—The Council on Pharmacy and Chemistry reports that Burnham's Soluble Iodin is a semi-secret preparation exploited by extravagant and dangerous therapeutic claims, and therefore ineligible for New and Nonofficial Remedies. The A. M. A. Chemical Laboratory has shown that the official tincture of iodine, diluted one-half, would be essentially equivalent to the Burnham preparation. While the promoters claim that the administration of free iodine is therapeutically superior to the administration of iodides, this is a fallacy. The small dose of Burnham's Soluble Iodin recommended by the manufacturer accounts for the claimed freedom from symptoms of iodism. The Council considers as particularly reprehensible the recommendation to inject the preparation intravenously and the proposed indiscriminate use in tuberculosis (Journal A. M. A., May 15, 1915, p. 1673).

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BOOK REVIEWS.....

McKenzie on Exercise

NEW (2d) EDITION

For this new edition, new matter to the extent of 175 pages has been added and 132 additional illustrations have been included. These additions make the work express the very latest advances both in the developmental exercises and physical training of the school, gymnasium, field and playground, and in the application of systematic exercises for the correction of deformities and certain functional derangements.

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12mo of 305 pages, illustrated. By Lieut.-Col. FRANK R. KEEFER, West Point Military Academy.

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Bass and Johns' Alveolodental Pyorrhea

This work discusses pyorrhea from the viewpoint of infection by the *Endamoeba buccalis*. Because of the long-drawn-out suppurating process in the mouth, the possible absorption of infectious and toxic substances, and the harm that may result from inability to masticate the food properly, this book will appeal as strongly to the physician as to the dentist and dental student.

Octavo of 168 pages, illustrated. By CHARLES C. BASS, M. D., Professor of Experimental Medicine, and FOSTER M. JOHNS, M. D., Instructor in the Laboratories of Clinical Medicine, Tulane Medical College. Cloth, \$2.50 net.

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THE JOURNAL

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VOL. XII

LITTLE ROCK, ARK., APRIL, 1916

No. 11

Original Articles.

THE FIRST MEDICAL FACULTY ELECTED IN ARKANSAS.

By L. P. Gibson, M. D.,
Little Rock.

The medical history of Arkansas would not be complete without an account of this first medical school organized in our state, doubtless unheard of before by any member of our State Society, and perhaps forgotten by the sole member still living, Dr. W. B. Weleh, who was one of its professors.

For many years it has been my habit to preserve the records of important events concerning medical matters in our state, and to file them in my "Medical Memory Book" of Pulaski County, and the State of Arkansas.

Recently, in looking up some medical records for a colleague in a neighboring city, I came across the transcribed minutes of the College of Physicians and Surgeons of Little Rock, pertaining to the organization of the first medical faculty in Arkansas.

It is necessary to explain that the College of Physicians and Surgeons of that day was one of the two medical societies then existing in Pulaski County, and that the name had been adopted without any idea that it would ever become a school.

Shortly after the establishment of the Medical Department of the Arkansas Industrial University, the two Pulaski societies united to form the Little Rock Medical Society, and a medical school afterward started in Little Rock, adopted the name of "College of Physicians and Surgeons," but was not even remotely connected with the old medical society of the same name.

St. John's College had been for many years the leading educational institution for youth in our state. It was a Masonic institution,

conducted by a Board of Trustees selected by the Masonic Grand Lodge of Arkansas. This school was at its highest in 1874, when the Brooks-Baxter war broke it up for a time, and crippled it so that it continued its downward course. Professor Baier, its president in 1879, was doing his utmost to rehabilitate it and enlarge its sphere of usefulness, but it continued its downward course and soon became extinct.

I was the secretary of the College of Physicians and Surgeons during the consideration of the proposal to establish the school, and took very complete notes; and the full transcript is given because very interesting side lights are thrown on the medical opinion of that day, concerning medical education in general, and a medical school in Arkansas in particular.

The school never got any further than this record shows. The leading physicians of Little Rock, with Dr. P. O. Hooper at their head, decided that it would be advantageous to be a branch of the Arkansas Industrial University at Fayetteville, and during that same summer (1879) organized the school now known as the Arkansas University Medical Department, purchased and transformed a building, and the first course of medical lecture in Arkansas began October 7, 1879.

TRANSCRIPT OF MINUTES.

SPECIAL MEETING.

Thursday, March 6, 1879.

The society was called to order at 8 o'clock by the president, Dr. Lenow in the chair.

There were present Drs. Bentley, Brey-sacher, Gibson, Hartt, Jennings and Pope.

The president stated the object of the meeting to be the consideration of the following communication which had been received by Dr. Hooper, and by him referred to the society.

The communication was then read by the secretary as follows:

"DEAR SIR—The matter of organizing in connection with St. John's College both a medical and law school has for some weeks been in my mind. It has seemed best to place the matter, through you, before the medical faculty of our city, and ask their judgment as to the feasibility of the plan. St. John's College has a university charter, and the putting into successful operation both a law and medical school would be only carrying out its provisions. Will you have the kindness to bring this important subject to the attention of the medical profession at a very early date.

"Very truly yours,

(Signed) "LEO BAIER."

Little Rock, Ark., March 1, 1879.

To Dr. P. O. Hooper.

The president said he would be glad to hear the opinion of the members on the subject.

Dr. Jennings said that for several years it had occurred to him that it would be a good idea to establish a preparatory medical school in Little Rock. There were so many small schools that issued diplomas and forced things considerably sometimes in order to make their graduating list as large as possible. He presented the catalog of the Portland School for Medical Instruction. It is a school where students are instructed in all the branches of medicine, but no diplomas are given. It had been in successful operation for twenty-two years and now had twenty-five scholars.

A great expense is always attached to the establishment of regular medical schools.

He did not doubt we had the mental ability, but as to the financial ability there was some doubt. He was in favor of taking hold of the scheme and advancing slowly. We could not expect to make it a paying institution at first. It would have to be supported not only by direct attention mentally, morally and physically, but it would require the financial support of the faculty. The laws of the state are very generous in regard to dissecting, a law which was enacted in but few, if any, other states.

Dr. Bentley said he doubted the propriety of any remarks by himself, but would say by way of encouragement that he favored the movement.

His observation had been that the establishment of such schools was always attended with considerable obstruction. He had belonged to a medical school in San Francisco which commenced under the most adverse circumstances. There was great opposition at first, but by hard labor and perseverance on the part of a united faculty, it had overcome many obstacles, and was now a flourishing school. It commenced with from seven to ten students, and had grown against all opposition, and now there are seventy-five students attending it. He believed in commencing as a first-class school on the highest principles. In the smaller schools as well as the large ones, when a man goes out he goes to represent the school and must be qualified. Students should be sent out with a feeling that they are as well qualified to practice their profession as the graduates of any of the Eastern colleges. As to a museum, when it was necessary to have one, it would be established. The school should be started on a high basis and make it require three or four courses to graduate. In the greater schools of the country it was much easier to graduate than in a small one. If it is deemed advisable to establish a school in the state, Little Rock is the place, and now is the time. It is just as easy now as it will be twenty years hence.

The school at Portland was never a success because the faculty was not united, and there were no advantages for dissecting there. If you graduate nobody for five or six years, simply prepare and send all of your students to the Eastern colleges, and then come to the conclusion that you are able to graduate students yourself, and stop sending them to other schools, the cry of opposition would be as great as if you commenced to graduate at the outset.

Dr. Hartt said the remarks of Dr. Bentley makes one feel like the school is already established and in successful operation. Like Dr. Jennings, he believed in making haste slowly. There are several branches that might be taught in connection with the Literary Department of St. John's College, such as chemistry, physiology, anatomy, and perhaps botany. And then after a while it might be advisable to add the other chairs of surgery, practice, etc.

Dr. Pope said he thought the establishment of the school very inadvisable at present. We

could not compete with St. Louis and other Eastern cities. He thought that we had better let the matter drop right now, for the project would inevitably fail. Forty or fifty years hence it perhaps would be advisable. We were not even able to give our children a literary education. Students could live as cheap in St. Louis or New York as in Little Rock, and the additional cost for transportation would be expended in order to obtain better advantages. Some time since we had a meeting to consider the advisability of establishing a medical journal here. The thing was considered, we refused to give it our support, and it fell through.

Dr. Jennings explained the reason the medical journal had failed.

Dr. Pope continued and said in establishing a medical college we should consider our appreciation throughout the state. We tried to have the insane asylum located here, and the prejudice against Little Rock was so great that it was located at some other place.

Dr. Breysaehler said no school commenced on a grand scale at first. The University of Padua commenced and took the sons of physicians free of charge in order to have their attendance.

In St. Louis there had been two schools started about the same time, and students were begged to come free of charge. These schools struggled for a long time, but by perseverance that had at last been successful, they were now flourishing.

If a Medical Department was established in connection with St. John's College, a large number of men in the state who had been practicing for years and were now grey-haired would avail themselves of the opportunity and spend several months each year attending lectures near home.

Dr. Bentley said that with all deference to the views of Drs. Hartt and Pope, he was compelled to differ from them. In regard to the prejudice against Little Rock, if we do not respect ourselves we cannot expect anybody to respect us. If we waited for a class of students to organize and come to Little Rock and say they did not want to go to St. Louis or the East, but desired to attend school nearer home, it would be several centuries before such a thing would be likely to occur. One reason why the insane asylum was not located in Little Rock was because there was not a well-organized medical fac-

ulty here who could have exerted the proper influence over the members of the legislature.

Dr. Jennings moved the further consideration of the subject be postponed until the next regular meeting of the society, and the secretary be instructed to notify Professor Baier that the society had his communication under consideration. Carried. Adjourned.

STATED MEETING.

Little Rock, March 29, 1879.

The president and vice president and secretary being absent, Dr. Hartt was called to the chair and Dr. Hopper acted as secretary.

The members present were Drs. Bentley, Breysaehler, Cantrell, Hartt, Hooper and Skipwith. The reading of the minutes was dispensed with.

The following from Professor Baier was then read:

"Dr. Gibson, Secretary, College of Physicians and Surgeons:

"DEAR SIR—Since the receipt of your communication the Board of Trustees of St. John's College have had a meeting and have authorized me to say to your college that they will most cheerfully add a Medical Department to St. John's College and will elect to the medical faculty such gentlemen as the College of Physicians may designate, leaving the curriculum of studies and the lecture fees to be arranged by the faculty.

"I hope the matter will reach a tangible shape so that it may be published in the forthcoming catalog. I am,

"Truly yours,

(Signed) "LEO BAIER,

"President St. John's College."

"Little Rock, Ark., March 29, 1879."

Dr. Breysaehler spoke on the subject and related what occurred at the last meeting.

Dr. Cantrell had not thought of the matter, but was willing to do what was thought best.

Dr. Skipwith thought it a good thing, but did not see where the money was to come from.

Dr. Breysaehler said no expense would occur except to St. John's College. Nothing to the faculty but the time. He thought the matter feasible.

Dr. Cantrell moved the request of Professor Baier be complied with. Carried.

Dr. Bentley said he had nothing new to add to what he had already said. The state

was increasing in population rapidly and ought to have a medical college. He had been connected with colleges and knew the difficulties that would present themselves; that material could be obtained at some expense; that the success of the school would depend on the union of the faculty, without rivalry or jealousy; that a museum could be gathered in time, by the pride of the men of the state, and physicians of the state would soon be proud of the institution. He thought men educated at home would be considered to know the diseases of the country best. That students would come not only from the state, but from other states.

The expense is no more than a man ought to be willing to bear. It may tax his time and brain, but it will make a man more competent and become more distinguished. He thought it was really a reflection if we did not do it. Floating as he was, he had no idea of being connected with it, but felt that it ought to be established, and if the right men were chosen, it would be a success. It must be done by individual action, and not expect the profession at large to call on us to organize. The field is large and he would like to see more enthusiasm by the members of this society. They should have and take an individual interest in it, and thought another meeting should be called so that everyone could be heard.

Dr. Hooper offered the following resolution which was adopted:

“Resolved, That a committee of three be appointed to investigate the report in compliance with Professor Baier’s request, and report on next Saturday evening.”

The president *pro tem.* appointed Drs. Bentley, Cantrell and Hartt as such committee.

It was decided that the faculty must be selected by this society.

ADJOURNED MEETING.

Little Rock, April 5, 1879.

The president and vice president being absent, on motion of Dr. Hooper, Dr. Breysaehar was elected president *pro tem.*

The members present were Drs. Bentley, Breysaehar, Cantrell, Hartt, Hooper, Jennings, Skipwith and Pope.

The chairman stated the first business would be the report of the committee appointed at last meeting in compliance with a resolution

offered by Dr. Hooper that a committee of three be appointed to investigate and report concerning the establishment of a medical school in connection with St. John’s College.

The secretary then read the following report of the committee, namely:

Little Rock, Ark., April 5, 1879.

To the College of Physicians and Surgeons:

GENTLEMEN — The committee appointed by the following resolution, namely: *Resolved, That a committee of three be appointed to investigate and report in compliance with Professor Baier’s request, and report on next Saturday evening,* have the honor to submit a report of their compliance with instructions. They visited the St. John’s College, and after a detailed interview with Professor Baier they found that he had understandingly written the letter to the College of Physicians and Surgeons; that he was informed that two medical societies existed here; that the question of adding a Medical Department to St. John’s College had been intelligently considered by the trustees of the college; that they acted unanimously, and would fully sustain the proposition that he, as president of the St. John’s College, had made to the Society of the College of Physicians and Surgeons; and that he had not offered any like proposition to any other body, but that he would meet the leading men of the Pulaski Medical Society, and if he did not induce them to join the College of Physicians and Surgeons, he would disarm them of opposition. He showed the committee the third floor of St. John’s College. Two large rooms which he would provide with seats for lecture rooms, two smaller rooms in the towers suitable for dissecting rooms, one of which, it was found, had already been initiated to dissecting by Dr. Cantrell, while the college was being occupied as a hospital.

There is also a small room in front suitable for a faculty room, and seven other desirable rooms on the same floor, that Professor Baier proposes to offer to medical students who will furnish them, free of charge, and they can also be accommodated with board on the most reasonable terms.

The committee have seen and conversed with as many medical gentlemen as has been practicable, and while they have found no disposition with some to actively co-operate in establishing a Medical Department, they have expressed an entire absence of hostility

and have even proposed to aid in supplying chemical and anatomical material. The committee have met the committee from the Pulaski County Society in conference, and after being organized, a concise and verbal statement was made by the College of Physicians and Surgeons of the real and relative conditions of the two societies with reference to the American Medical Association, and the terms by which recognition would lead to a happy result—alike creditable to the regular profession of the state. These propositions and statements were unanimously declined by the committee representing the Pulaski County Medical Society, Drs. Cross and Pirtlo—Dr. Dibrell being reported unavoidably absent. They did, however, assent and pledge themselves to appoint a committee of three from the State Association to negotiate with a similar committee from the State Society for the purpose of forgetting the past and establishing harmony and consideration. This proposition concluded the conference. It has been found impracticable for the committee to fix on the names of the faculty satisfactorily. We beg leave, however, to submit the following, trusting that a majority may meet the wishes of the society and form a nucleus for further action and consideration of the faculty.

1. Theory of Practice of Medicine, P. O. Hooper, M. D.

2. Principles and Practice of Surgery, W. B. Welch, M. D.

3. General Descriptive and Pathological Anatomy, E. R. DuVal, M. D.

4. Obstetrics and Diseases of Women, A. L. Breysacher, M. D.

5. Materia Medica and Therapeutics, John J. McAlmont, M. D.

6. Clinical Surgery and Venereal Diseases, R. G. Jennings, M. D.

7. Physiology and Hygiene, J. M. Keller, M. D.

8. Chemistry and Toxicology, Professor Johnson.

9. Diseases of the Eye and Ear, T. E. Murrell, M. D.

(Signed) EDWIN BENTLEY, *Chairman*,

W. A. CANTRELL,

GEORGE C. HARTT,

Committee.

On motion of Dr. Hooper, the foregoing report was adopted.

Dr. Hooper said that several gentlemen had been selected as members of the faculty who were nonresidents of the city and would not probably accept a position in the faculty. He asked the chairman of the committee to explain why their names were suggested.

Dr. Bentley, chairman of the committee, said it was their desire to make the college more of a state institution than a local affair, and they had selected these gentlemen from different parts of the state in order to get their co-operation and assistance, even though they should decline a place in the faculty.

Dr. Jennings moved the committee be instructed to notify the gentlemen who had been selected as members of the faculty, and that if they would accept, they would be elected. Carried.

On motion of Dr. Jennings, the society adjourned.

STATE MEETING.

Little Rock, Ark., April 26, 1879.

The society was called to order at 8 o'clock, the president, Dr. Lenow, in the chair. There were present Drs. Bentley, Breysacher, Cantrell, Hartt, Hooper, Jennings, Pope, Skipwith and Gibson.

The minutes of previous meetings were read and approved.

Under the call of unfinished business, Dr. Bentley, chairman of the committee to select faculty for Medical Department of St. John's College, said he had informed the faculty of their selection, and out of nine members selected, five had accepted.

Suite 19, Urquhart Building.

INSTRUMENTS OF PRECISION, AND PROGRESS IN SCIENCE.

"Steps of real progress in medicine can be measured definitely by tracing the introduction of instruments particularly for diagnosis. Further, the progress of medical practice as an art depends largely on the generalization of the use of instruments of precision for diagnostic purposes. There is nearly always a distinct feeling of opposition to the introduction of new devices because of the inconvenience involved in having them at hand and the habits of accuracy demanded for their proper use. Once they are introduced, we wonder how we ever managed to

do without them, and realize how handicapped preceding generations of physicians were who knew nothing of them. While steps in the supposed progress that comes from hypothesis and theory often have to be retracted, with serious loss of time to the generation as well as disadvantage to the patient and discouragement for the physician, the advances which are registered with the use of instruments of precision remain with us as definite achievements for both the science and the art of medicine."—The Journal of the American Medical Association.

MASTOIDITIS.*

By J. Wilson Ramsey, M. D.,
Jonesboro.

In this brief paper I shall not attempt to give a complete description of even the acute form of mastoiditis, but will confine myself to bringing out some of the points in the management of a case of acute mastoiditis which appear to me to be especially important.

The inflammation occurs most frequently secondary to an acute inflammation of the middle ear, and this, in turn, is caused usually by an inflammation in the naso-pharynx and extends through the eustachian tube to the tympanum and thence to the antrum and mastoid cells. The chief causes starting the inflammation are influenza, a very frequent cause, long exposure to wet and cold, the exanthematous diseases, diphtheria, tonsillitis, bronchitis, tuberculosis, and syphilis.

Pollitzer has demonstrated that in an inflammation of the middle ear, the mastoid cells are also inflamed and has found pus in the cells in post-mortem in cases of acute middle ear inflammation; so that an acute inflammation of the middle ear should always be carefully treated in order to prevent the formation of a mastoid abscess.

Pain in the mastoid process is the most prominent symptom of mastoiditis. The pain radiates in different directions, upward to the temporal region and downward and forward to the teeth. The pain is great when firm pressure is made on the bone or the bone is percussed. Pain on pressure is usually limited to the region over the antrum and to

the middle and lower thirds, especially the tip, but the abscess in the bone may not be located beneath the sensitive point. In some cases there is little or no pain. The surface temperature of the afflicted side is increased. There may be bulging of the posterior and upper portions of the drumhead with drooping of the adjacent soft parts of the external meatus. The temperature may vary from $99\frac{1}{2}$ to 104 or 105, but there may be very severe disease of the bone with hardly any rise in temperature; hence, the practitioner must be on his guard and not be misled and think that because there is no fever, there is no danger. If a patient has an acute purulent otitis media for ten days or more, and the drumhead and upper wall of the canal are bulging and there is pain on pressure over some portion of the mastoid and some rise in temperature, we have a very good picture of mastoid disease, especially if the discharge is profuse. We do not wait for signs of redness and swelling of the tissues behind the auricle, and valuable time may be lost by deferring an operation to the latter stage. We sometimes get symptoms similar to these in furunculosis of the external auditory canal, but an examination of the canal will exclude this disease.

An acute inflammation of the mastoid may terminate in recovery without the formation of a bone abscess, but more frequently pus forms, followed by carious destruction of bone. In influenza, rapid destruction of the bone results, so that early operation is indicated. If delayed too long, the pus may force its way through the tympanic roof and cause a meningitis or a brain abscess, or may destroy the thin plate of bone covering the sigmoid sinus and cause thrombosis, or the tip may be perforated, the so-called Bezold mastoiditis, and the tissues of the neck become infected, which may result in septicemia, pyemia, or a post-pharyngeal abscess. I recall a case I had in my service when I was an intern in the Illinois State Charitable Eye and Ear Infirmary at Chicago, which emphasizes several points. The disease in this patient had run on for several weeks. There was more or less constant pain in the mastoid; but the membrans tympani was almost normal and the other symptoms indicative of the nature and extent of the disease were very slight; but when the mastoid was opened, the entire tip was necrotic and pus had bur-

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, held in Little Rock, May 3-6, 1916.

rowed into the tissues of the neck, which made necessary an extensive dissection in order to secure adequate drainage.

In the pneumatic variety of mastoid where the cells are large and the cortex thin, the pus is apt to form a passage externally, while in the diplocitic or sclerosed variety the tendency is for the pus to escape through a earious opening in the tympanic roof and give rise to an extradural or a brain abscess.

The prognosis is generally favorable in the simple cases with no complications, if the disease is of recent origin. When occurring in connection with some severe infectious disease, especially if it has existed for some time, it is more grave. In ten days' time the entire mastoid process may be filled with pus and there may be a earious opening into the middle or posterior fossa. Very grave conditions may be found without symptoms indicating much trouble.

TREATMENT.

Much can be done in the way of prophylaxis. In the first place I would emphasize the importance of putting the naso-pharynx of all children, and adults also, in a healthy condition by the removal of diseased tonsils and adenoids. These conditions are responsible for most of the throat troubles of children, and their presence makes infection by the diseases largely responsible for mastoiditis much easier to occur. This in addition to their other bad effects. And when I refer to the removal of diseased tonsils, I mean their complete removal en capsule. That is the only way to get satisfactory results in dealing with diseased tonsils. Going a step farther, after the inflammation has become established in the middle ear, in addition to the usual treatment, I would emphasize the importance of a free incision in the drum membrane, if it is bulging. I frequently have cases on whom I think, when I first see them, that I will have to do a mastoid operation; but after I have opened up the drum and given the other treatment indicated, the symptoms rapidly disappear.

When there is evidence of inflammation in the mastoid, the patient should be put to bed, the bowels evacuated, and cold applied over the mastoid for forty-eight hours. The artificial leach must be used. The external auditory canal must be kept free from secretions and the canal may be douched with a solution

of boric acid or bichlorid (1-3000). It is advisable to abstain from the use of antipyretics in mastoid disease, as they may mask important symptoms.

If the condition of the patient does not improve under the treatment outlined, if the pain persists, temperature remains high, after the appearance of the discharge, and especially if the discharge is profuse, the drum-head is bulging in the upper posterior quadrant with drooping of the adjacent soft tissues of the external meatus, if there is considerable deafness with pain on pressure over the mastoid process, the surgeon should open up the mastoid, especially if the trouble is caused by influenza, scarlatina, measles, diphtheria, or if there are large numbers of streptococci in the discharge.

I have given a description of the typical cases of mastoid disease, but atypical cases are rather frequent and they are the ones that tax your diagnostic ability to the limit. The symptoms of the trouble may not be at all marked. Some time ago I had a patient come to see me complaining of headache and had a discharge from the ear. There was no bulging of the drum membrane and no rise in temperature when I saw her on several occasions. In fact, the temperature was slightly normal at times. There was, however, tenderness over the mastoid. Under treatment this almost disappeared, but when treatment was stopped would return, and I opened up the mastoid and found pus in the antrum and the whole tip necrotic. The sigmoid sinus was found covered with granulations. All necrotic tissue was removed and the patient made a good recovery. In conclusion, I will report a few more cases upon whom I have operated.

N. G. was a girl fourteen years old and had had trouble with the left ear since she was three weeks old. She had had trouble with the mastoid since she was three months old. When I first saw her there was much post-auricular swelling with a discharging fistula leading to the region of the antrum. A large polypus was protruding from the external auditory canal, from which also there was a profuse discharge of pus. Immediately upon making the skin incision, a large cavity in the bone was found filled with pus and granulation tissue. This was cleaned out and a necrotic tip removed, and in removing the necrotic bone the sigmoid sinus was exposed

over a very large area. This was covered with granulations and pus. When the granulations were all cleaned out it was found that nature had converted the tympanum antrum and mastoid cells into one large cavity, and the appearance presented was not much different from that of a completed radical mastoid. The post-auricular incision was closed and the cavity packed through the canal and the patient made an excellent recovery.

R. P. was brought to the hospital suffering from an ear and mastoid trouble of six months duration, according to the history we were able to obtain. There was an enormous swelling on the right side of the neck, not much discharge from the ear and not much mastoid swelling, but the patient was in such a condition that he was about ready to die. I did an immediate mastoid operation, making a large incision, and found a Bezold mastoiditis complicated with an extradural abscess. A large amount of pus was obtained from the extradural abscess and the abscess cavity in the neck extended almost to the clavicle. The patient made an uninterrupted recovery and left the hospital in about three weeks.

DISCUSSION.

Dr. H. H. Moulton (Fort Smith): I wish only to emphasize two points, the importance of prophylaxis and the difficulties of diagnosis.

As to prophylaxis—where the middle ear has become involved, every case of acute suppuration of the middle ear should be managed as though we expected a mastoid inflammation to develop. The most important part of this management is to secure free drainage through the drum membrane. If the drum membrane is bulging, it must be freely incised under aseptic precautions. If the membrane is perforated, but is still bulging, the opening must be enlarged. By these observations, by careful treatment of the naso-pharynx and rest in bed, many cases of mastoiditis will be prevented.

As to diagnostic difficulties—we have for symptoms of mastoiditis, pain, tenderness, swelling, slight or profuse discharge, and fever. As a matter of course, many times in fact, almost always we might say, some of these symptoms are lacking. Pain is usually spoken of as the most prominent symptoms. Pain over the mastoid process. But there are cases in which this symptom is entirely absent. One of the most insistent cases of mastoid diseases I ever operated upon was one in which the mastoid inflammation complicated typhoid fever. From the beginning, acute middle ear inflammation was present, but until the day of operation there had never been any pain. Tenderness is always present. Sometimes during the course of mastoid inflammation, swelling is present. In a great many cases, if you follow it long enough and have waited long enough. Do not get the impression that you must wait for swelling to develop. If you do, you will likely wait till your patient dies before you will get any swelling. Swelling is much more common in furunculosis than it is in mastoiditis. Profuse discharge sometimes will be the only indica-

tion for operation and may be distinguished only from the fact that the discharge from the meatus is too abundant to come from the middle ear alone.

Dr. J. F. Rowland (Hot Springs): I believe in these cases of middle ear troubles the remedy lies in free incision at the outset. I have frequently made these paracenteses of one section and the next day it would be closed up. At times when I made cross-section of the drum membrane I found that they remained open considerably longer than when I made one incision.

My experience with the vaccines in these cases has been very satisfactory.

I wish to report a case I had recently. A young man who, two or three weeks prior to my seeing him, had had an attack of la grippe. As a result he had developed an acute otitis media in one ear. I made free incision of the drum membrane. The patient improved and in a short time was able to go back to his work. About the third or fourth day after resuming his work he became very ill, severe chill, high fever and every symptom of acute mastoiditis. The ear was discharging freely. One of our pathologists took some of the pus and made a vaccine of the most prevailing strain, which was the pneumococcus. We began by giving the patient hyperdramatically ten millions of the dead bacillus and increasing the dosage ten millions daily. Less than two weeks all of the symptoms, as well as the discharge, had completely subsided. No other treatment other than the vaccine was given. In the event the stock vaccine is used, I would suggest determine the prevailing strain causing the trouble and to use the bacterine of that strain. Dr. Nagle of Boston and Dr. Haskins of New York both report favorable vaccine treatment worthy of a trial.

W. T. McCurry (Little Rock): The most important thing to bear in mind is to know when we have mastoiditis. A few months ago I was treating a man for otitis media who had not lost a day from his work; had no pain at all, except in front of the ear. I incised his drum and liberated some blood and pus; but that did not relieve him. He was then operated on a few days later, the mastoid containing a quantity of pus. This patient had had no pain at all.

Another case just a few weeks ago was referred to me by Dr. Huntington. I think he came from Siloam Springs with a case of otitis media. The other doctor had opened the drum and got good drainage. When he came to me I opened the drum again and got good drainage; but this did not relieve him. He went to the hospital for treatment; we made a free incision over the mastoid process. One lick of the chisel and mallet brought pus. This man had not been in bed at all.

Another case I had, had been suffering intensely for about three months. He had had otitis media from childhood to the age of thirty years. He had frequent recurrences of pain and suppuration. In this case, in chiseling away the bone I went into the sinus. This man made an uninterrupted recovery in about four weeks after the wound was closed.

Another case, male, age thirty years, had measles in childhood; his ears had troubled him at intervals ever since. I operated on both mastoids, and he made a good recovery in three weeks.

H. H. Rightor (Helena): In this connection I wish to call attention to a very simple, but what may be a useful, diagnostic point: Often some days after the discharge from a purulent otitis media begins, the patient will have excruciating pain in the ear. This may be the onset of a mastoiditis, but many times is a furunculosis of the canal. How can you tell one from the other? In mastoiditis the region over the mastoid bone is tender on pressure and per-

cussion, but moving the auricle or pressure over the meatus is not at all painful; on the other hand, in external otitis or furunculosis great pain is elicited by even very gentle movements of the auricle, and pressure over the auditory meatus causes excruciating pain. The mastoid, of course, is not tender. Remembering this little point may sometimes save both the doctor and patient a good deal of anxiety.

TONSILLECTOMY WITH LOCAL ANESTHESIA.*

By H. H. Rightor, M. D.,
Helena.

One of the notable advances in preventive medicine in the last few years is the knowledge that many chronic and incurable diseases are caused by a focus of infection that is curable or removable, in most instances. The probabilities are that a large percentage of the cases of chronic nephritis, chronic endocarditis, chronic arthritis, and most cases of acute inflammatory arthritis, are caused by a latent focus of infection in the teeth, tonsils or accessory sinuses of the nose. Pyorrhea alveolaris is one of the most prolific causes of disease. It seems that the new bacteriological studies are going to prove the means of curing many of these cases. Nowadays, sinus disease is successfully treated, no matter of how long standing. Chronic tonsillar infection we can certainly remove, and I consider a chronically diseased tonsil such a menace to heart, kidneys and joints that I advise its removal for this reason more than to control the throat symptoms, which may be inconsiderable.

Granted, then, that the tonsils are a *causa morbi* and that they perform no useful function, the next question is, which method of removing them is the least dangerous in patients over fifteen years of age? Which will cause the patient least suffering and least hemorrhage at the time of operation? Which method will be followed by the most rapid and most comfortable convalescence? Which will enable the patient sooner to resume his accustomed occupation? To all these questions my answer would unqualifiedly be: with local anesthesia, with the exception of a few neurotics.

Let us consider the disadvantages of a general anesthetic, for we all recognize its advan-

tages. First, it has a slight danger, and there is a considerable dread of it on the part of the prospective patient. Often this fear of the anesthetic is sufficient to cause a refusal to submit to operation.

Second, the administration of any of the general anesthetics for a throat operation that takes some time, is a little difficult, without a rather complicated apparatus. Under ether narcosis, blood pressure is raised and the hemorrhage profuse, requiring in many cases the need of a suction apparatus to keep the field free of blood. This loss of blood, while rarely dangerous, certainly is not actually *good* for the patient.

The post-anesthetic nausea and vomiting and anorexia we occasionally see are decidedly unpleasant and retard convalescence, while the severe vomiting we *sometimes* see may be serious in cases of excessive bleeding.

On the other hand, tonsillectomy done with local anesthesia produced by means of novocain and adrenalin is painless and almost bloodless. It can be done in your office. The post-operative pain is very slight, patient rarely losing his appetite, and deglutition only slightly painful. In a week the case is usually entirely well.

To attain these happy results it is necessary to pay great attention to slight details. First, in anesthetizing, I apply several times a 20 per cent solution of cocaine to tonsils, pillars, soft palate and pharynx by means of a camel's hair brush, from which all excess has been squeezed. I then prepare 16 c.c. of a 1 per cent solution of novocain in which is dropped ten drops of 1 to 1,000 solution adrenalin. Of this, two c.c. is first injected into the upper part of post-pharyngeal pillar, being very careful to get your needle just under the mucous membrane and not into the muscular tissue. Then, by means of a properly curved needle passed over and outside the tonsil, inject two c.c. Next, two c.c. into superior portion of anterior pillar and two more lower down, being certain that entire area is infiltrated. The second tonsil is injected immediately. I now wait about five minutes, for some patients complain of headache from the adrenalin, or are slightly faint.

The usual technic in enucleation is now carried out. If this is carefully and correctly done, it is startling how easily the tonsil is enucleated in its capsule. There is an entire absence of pain; no retching or gagging when

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, held in Little Rock, May 3-6, 1916.

traction is made in lifting the gland out of the tonsillar fossa, and there is rarely more hemorrhage than follows the extraction of a tooth.

DISCUSSION.

Dr. Robert Caldwell (Little Rock): In regard to removing tonsils with local anesthesia, I believe the essayist said in the latter part of his paper there was little or no pain; no retching; no gagging, and little or no hemorrhage. Sometimes we meet with very susceptible throats, with a good deal of retching and a good deal of vomiting that no amount of anesthesia will control. As to how much novocain I use, I think a good deal depends on the patient. I use general anesthesia always for children, and local anesthesia for grown people, if I can get them to permit them. Sometimes they will not allow local anesthesia. I have had more trouble in getting the patient to consent to local anesthesia than general anesthesia. I may get a patient to submit to the operation under local, but he usually prefers the general anesthesia.

I believe that a great many infections come from the tonsils. I have seen one or two cases in which some sort of infection is absorbed from the mucus membrane of the throat, just the same as it can be from the tonsil. In said cases the tonsils had been removed and the infection kept up. Another point, I have accidentally injected an anterior pillar a few times to my regret. The mucus membrane developed a chemosis-like condition and swelled up in welts as large as my finger. I had trouble in getting the pillar loose from the tonsil.

I never want my needle to stay in the pillar. It would be all right if the needle went through the pillar into the tonsil or cellular tissue around the capsule.

Dr. T. M. Fly (Little Rock): I had my tonsils removed by this method in the hope that it would relieve rheumatism. I want to say that I had no relief. I would like to ask these gentlemen if I should have my pharynx removed.

Dr. F. Vinsonhaler (Little Rock): I think there is just a slight pedicle remaining which Dr. Fly complains of, which causes the acute condition that Dr. Rightor has explained.

The work is carried on here just as elsewhere. Where one is studying the technic and getting more proficient all the time, he can easily demonstrate to his own satisfaction. My opinion is that the best method for doing these tonsillectomies is by scissors and snare. When I go to the city of Chicago where some of the best work is done, I find they use the Sluder method in which they carry the tonsils forward against the mandible, pushing against the tonsil and forcing it through the opening until they come to the capsule. Others dissect it out with a sharp knife, while still others do not insist upon the knife being especially sharp, take it out with a blunt dissector and remove the remainder of the tonsil with a snare. It does not make so much difference which method you use, provided you use the method correctly and get good results. Each man has his own method. There is a great deal in the personality of the operator in regard to succeeding under local anesthesia. I do not think that one can be sure himself as to the best method.

I am willing to admit that infiltration of the tonsil can be made complete and thorough under novocain and adrenalin. I think that is the ideal way of doing it. With novocain and dexterity in the manipulation of his instruments and his assurance to the patient that there is to be no pain—or comparatively none—

he can accomplish, as the doctor says, "almost painless tonsillectomy."

Dr. W. A. Snodgrass (Little Rock): I believe if you are going to attempt enucleation of the tonsil you should do it under general anesthesia, because the tissue heals more rapidly. When you inject cocain, novocain or adreualin into the tissues, it interferes with the nutrition of the part that is left. You get more rapid repair of the tissues than you will if local anesthetics are used.

Dr. W. A. Swindle (Walnut Ridge): In the tonsil operations I have seen, I found some time was gained in securing local anesthesia by giving a hypodermic of morphin, one-fourth grain, to hasten matters, three-quarters of an hour before getting ready to operate.

Dr. J. F. Rowland (Hot Springs): I prefer general anesthesia in cases where you have the consent of the patient. You can control it better. But where you want to do a quick operation, I give local anesthesia if the patient demands it. Most adults demand local anesthesia. In the last few cases I have operated upon I have given morphin in quarter-grain doses and also used atropin. My patients did much better. In the last six weeks I have operated two cases for rheumatism. One was age forty, and the other forty-eight years. In both of these cases I encountered submerged tonsils and had an area of infection in both of them. The first patient, since his return home, states that he is getting on nicely; health good, and gaining in weight. The last patient wrote me about a week or ten days after the operation that he was walking with a stick, but had pains in his knee. A few days ago I heard from him and he has no pains now in his limb, and general condition much improved.

Dr. Rightor (closing): In regard to the technic which I use, I must say that I have had good results. In regard to Dr. Caldwell's comment, it was not a criticism of the technic I used, but rather a word of caution as to the site of injection. I think it is the difference between that of injecting it into the pillar and into the tonsil. I inject into the tonsil, as I have explained. It is the Kelliher-Oneal method and is the method used by Ayer. We do not have any bad results where the technic has been successfully carried out.

IMPORTANCE OF TREATING DISEASES OF THE ACCESSORY SINUSES OF THE NOSE.*

By L. Herbert Lanier, M. D.,
Texarkana.

In the whole domain of medicine and surgery the diseases of the accessory sinuses and their treatment are more often overlooked and neglected, than pathological conditions of any other region of the human anatomy.

Yet these diseases are amenable to treatment, and in fact the advancement made in recent years in their therapeutic and surgical

*Read by title before the Thirty-ninth Annual Session of the Arkansas Medical Society, held in Little Rock, May 3-6, 1916.

management is on a parallel with the best and most scientific treatment offered for diseases affecting any other part of the body.

That we may better understand the indications for certain remedies, in sinus disease we shall first consider the general etiology.

GENERAL ETIOLOGY.

There exist several distinct processes by which the mucous membrane of the accessory sinuses may become diseased:

1. Through direct invasion of the healthy sinus by pathogenic bacteria.
2. Through extension of inflammation from neighboring parts.
3. As a result of tuberculosis, syphilis, malignant tumors, and latent empyema.
4. Through the blood and lymph channels.
5. Through traumatism—exposure to cold, sea bathing, automobile riding, etc.
6. Through foreign bodies.
7. Through contamination from the pus of overlying sinuses, sinusitis.

Inflammation in these sinuses generally starts from the nose. A catarrhal rhinitis, for example, extending through the infundibulum to the frontal sinuses and to the anterior ethmoidal cells, or from the superior meatus into the posterior ethmoidal meatus into the antrum. The antrum may also become infected through the teeth, in which many cases perforate its floor.

The first stage is a thickening and congestion of the mucous membrane, a narrowing of the natural outlet, and a retention of mucous secretion within the sinus.

Following this, there may be great distension of the cavity; the orbital space is encroached upon, and ocular symptoms make their appearance. The final stage is that of suppuration. The process remains no longer limited to the sinus; orbital abscess may ensue, with all its dangers, or extension backward or upward into the brain cavity may cause a fatal meningitis.

Without prompt and skillful treatment, necrosis of the bones and the formation of intractable fistule may generally be expected in these cases.

Tumors and polypi may spring from the mucous membrane of the accessory sinuses and push their way into the orbit, or the

sinuses may become secondarily invaded by tumors originating elsewhere.

The researches of Zukerkandle Hajek, Douglass, Ballanger, Freer and others have added a fund of knowledge that solves and simplifies many problems that have arisen in the study of rhinology. Many disorders formerly considered due to ocular disturbances, neuralgia, dyspepsia, constipation and the like, are now known to arise from inflammatory conditions of the accessory sinuses of the nose; and of these the ethmoidal and frontal sinus complications more usually prevail.

In ethmoiditis the chief symptom observed is that of headache, involving the supra-orbital region, and often the temporal. The pain is usually more pronounced at the root of the nose on the affected side. In acute ethmoiditis the pain is constant, while the chronic form is usually without pain, except during the period of acute exacerbation. The patient often experiences much distress from occlusion of the nostril. In such cases an intranasal examination reveals more or less congestion and hypertrophy of the mucosa and turbinates. If the condition is that of a "closed" empyema of the ethmoid, no other definite symptoms may be presented; but if the empyema be open and discharging, other diagnostic signs may be noted.

The discharge from the nostril in the early stage of the infection is *serum*, containing a few leukocytes and epithelial cells. These increase in number as the disease progresses, the discharge finally assuming a yellowish, muco-purulent appearance. During convalescence this becomes more scant, the exudate within the cells is absorbed, the epithelium is renewed, and the swelling subsides.

In chronic ethmoiditis the bony walls may become necrosed and permit an extension of the infection into the neighboring tissues. If the orbit is invaded, a cellulitis with pus formation may develop, and an exophthalmos be produced.

Dr. Knapp states that "Ocular paralyses are not infrequently the only manifestations of orbital complications. Other *ocular* disorders, as pain and impaired vision, are at times due to orbital pressure, arising from the intranasal pressure of hypertrophied turbinates. Diplopia, optic neuritis, contraction of the visual field, scotoma and blindness

have resulted." In a series of 400 cases reported of orbital infection accompanying sinusitis, 15 per cent resulted in blindness.

Not infrequently the cranial cavity is involved and a fatal brain lesion developed. Perforations from the sinuses into the middle and anterior fossa have been observed. In acute ethmoiditis, such invasions into the cranial cavity may occur without necrosis of bone, the pathological process extending by way of the veins and lymphatics, as avenues to the meninges.

Gowers considers that $2\frac{1}{2}$ per cent of brain abscesses arise from nasal sinus infections.

A loss of the sense of smell also indicates the presence of a sinusitis.

The successful treatment of ethmoiditis depends largely upon an accurate diagnosis of the case. The symptoms above described are important guides, but in addition, it is essential to ascertain the true source of the purulent discharge. The search for this is facilitated by a second examination of the patient; especially is this essential in an open empyema. The patient is requested to return after a few hours, or on the following day, and is directed to refrain from irrigating or blowing the nose for three hours preceding his return to the office.

On his arrival, the turbinates and meati are carefully searched for streams or accumulations of pus. Further inspection is facilitated by shrinking the turbinates with a 4 per cent solution of cocain, applied by means of a cotton-tipped probe. The presence of pus upon the middle of the inferior turbinate, and appearing to flow from beneath the middle turbinate, indicates an infection of the antrum, frontal sinus or anterior ethmoidal cells. If the pus be traced above the orifice of the antrum, into the infundibulum, it flows from the frontal or from the ethmoidal.

If this flow continues after the nasofrontal duct is plugged, it arises from the anterior ethmoidal cells. The use of the transilluminator applied to the orbit, above the inner canthus, will demonstrate the presence or absence of pus in the frontal sinus. If pus appears upon the inner or septal side of the middle turbinate, it arises from the posterior ethmoidal cells or from the sphenoidal sinus.

This may be more easily demonstrated by examination of the nasopharynx with a rhinoscopic mirror.

The diagnosis of ethmoiditis having been established, the question of treatment is next in importance. In this the credulous public has been repeatedly victimized by numerous "catarrh remedies" placed upon the market, a few of which possess more or less merit in certain cases, but their indiscriminate use has been attended by disappointment and injury.

Acute rhinitis and ethmoiditis respond favorably to the following medication: The nasal cavities are first irrigated freely with a mild alkaline antiseptic solution. Then the congested and swollen membranes are treated with a 4 per cent cocain solution, applied by means of a cotton-tipped probe. This is followed after a few minutes with the application of a 2 per cent antipyrin solution in the same manner to prolong the local anemia produced by the cocain. Some prefer spraying the surfaces with a 1 per cent cocain in a 2 per cent solution of antipyrin, but the cotton-tipped probe is preferable, for obvious reasons.

Adrenalin ehlorid solution 1-1,000 also reduces the swelling promptly, and may be used in preference to cocain if the latter is contraindicated. The office treatment is completed by the use of benzoinol vapor, applied to each nasal cavity, Douglass formula preferred. Bishop's coryza tablets and an acetanilid composition are prescribed, to be taken alternately as indicated. An ointment of bismuth and adrenalin is also given, to be applied to the nasal cavities three times daily. The office treatment is repeated daily until satisfactory results are obtained.

This treatment is followed by a prompt shrinking of the tissues and a better drainage and aeration of the sinuses, affording great relief to the patient and usually a cure of the disease. Lavage of the ethmoidal cells without previous exenteration is unsatisfactory in its results, by reason of the fact that all of the cells cannot be reached by this method.

In chronic ethmoiditis, surgical interference is usually necessary for a more thorough and satisfactory treatment, the object being that of removing all necrosed tissue and of establishing free drainage. In certain acute cases also, an operation is indicated, the special indications being a sudden rise of temperature, delirium, tumor formation in the inner wall of the orbit and exophthalmos.

Delays in such cases are considered dangerous, because of the liability of meningeal involvement. In all cases of operation for frontal sinusitis, the ethmoidal cells should also be curetted, since they would also be infected.

Preceding the operation for ethmoiditis, the nasal cavities should be freely irrigated with a mild alkaline antiseptic solution. Then the site of the operation is anesthetized with a cotton-tipped probe dipped into adrenalin solution 1-1,000, the excess removed, it is rolled in powdered cocain, then applied to the middle turbinate and adjacent mucosa.

This application is repeated at intervals of three mixtures until the area is perfectly anesthetized, three or four applications usually being sufficient. The operation consists essentially in removing the anterior portion of the middle turbinate, and opening out the ethmoid labyrinth.

If polypi be present, they must first be removed by a cold wire snare or forceps. Various methods and numerous mechanical devices are extant for its performance, but a safe and effective method is that in which the Beekman-Ballanger scissors, the Bosworth snare, and the Tieck conchotome are utilized as follows:

With the scissors a deep incision is made transversely through the base of the middle turbinate, severing its anterior attachment, as in Figure 1. The tip of an oval, cold wire snare is then inserted into the incision and the loop is drawn downward and backward so as to include a large portion of the turbinate in its grasp. The snare is then tightened and the included portion severed and removed. This being accomplished, a conchotome or Douglass forcep is used to crush and remove the partitional walls of the ethmoidal cells.

Very little is necessary to crush the cell walls, and due caution must always be taken in this procedure to avoid injury to the brain above and to the eye at the outer side. The relationships of the ethmoidal labyrinth should be observed, remembering that above it lies the cranial cavity, at the outer side the orbit, and below is the maxillary sinus cavities, while directly posterior is the sphenoidal sinus. A very convenient and important landmark is the inner canthus, on the affected side. The operator places his left index finger along the inner canthus while operating. This indicates to him the width of the cells,

also the distance of the instrument from the plate. Other safe guides to a successful operation are the bulla ethmoidalis and hiatus semilunaris, the latter being anterior to all the cells except that in the processus uncinatus. In order to avoid all possible injury to the brain, the instrument in use for curetting the cells should be directed slightly downward from a plane parallel with the cribiform plate, as it progresses cautiously and with gentle force backward to the sphenoidal sinus.

Ballanger's ethmoid curette is very serviceable in following the use of the conchotome, for removing necrotic tissue and smoothing off projecting cell walls.

A space of about three c. m. in length and the width of the middle turbinate is created by removal of the ethmoidal cells. By this exenteration of the multiple cells we produce a large opening into the nasal cavity, which affords free drainage and easy access, not only to the ethmoidal, but also to the frontal sinus. External operative measures are seldom necessary, except in rare cases of extensive necrosis accompanying tertiary syphilis.

After the operation is completed, the cavity is packed with a half-inch strip of sterilized gauze, saturated with sterilized benzoated vaselin. The upper portion of the nasal cavity is first packed, then the lower portion of the cavity is filled to retain the upper gauze in place. The packing is made more comfortable to the patient if a fenestrated piece of rubber tubing three-eighths of an inch in diameter and two inches in length is laid along the floor of the inferior meatus and the gauze packed above it. A piece of web catheter No. 10 is suitable. This facilitates respiration and drainage and affords the patient much comfort.

After twenty-four hours the packing is removed and the cavity gently irrigated with a warm wine-colored solution of potassium permanganate. It is then loosely packed with a half-inch strip of gauze saturated with a 10 per cent aq. solution of ichthyol. After twenty minutes this is removed. This treatment is given once or twice daily for the first three days, after which a mild alkaline antiseptic solution is used by the patient, two or three times daily. A vaporizer containing Douglass' formula of benzoinol is prescribed, to be used after the irrigations.

The office treatments are continued as indicated.

The use of bismuth paste is highly recommended by Dr. Joseph C. Beck and others in the treatment of chronic suppurative conditions of the ear, nose and throat. He states the following: "As a nasal dressing in turbinectomies and septal operations, bismuth paste has served me better than any other, in that it checked the bleeding, prevented infections and decompositions and synechia formations, especially in ethmoidal operations. In the treatment of ethmoiditis, a thorough exenteration of the multiple cells is necessary before treatment."

The paste can only be used in the chronic cases and not in the acute, as in the latter a violent reaction is set up. It is especially effective in post-operative treatment of a sinusitis where the discharges are persistent. Judging from the most favorable results obtained in the treatment of suppurative conditions in other regions of the body, we may reasonably anticipate satisfactory results from its more extended use in rhinology. When an ordinary uncomplicated case of chronic frontal sinusitis presents itself for treatment, we are confronted by one of the two following possibilities: either that (a) the installation of free drainage and ventilation will bring about a cure, or at least an amelioration of all symptoms, so that only a thin serous discharge persists, or that (b) the sinus mucosa has undergone such changes as to preclude the possibility of a cure except through radical operative measures.

Our first thought will be to establish free drainage; this is the first principle in the treatment of any sinus affection, and applies particularly to the frontal, as the ostium lies in the most favorable position for constant drainage, presuming that no polypoid formations are present. We note that the middle turbinate is either swollen at its anterior extremity so that it encroaches on the middle nasal passage, or it lies sufficiently close to the lateral nasal wall to effectually prevent the passage of a sound into the sinus.

As it is absolutely essential that this structure should be removed from its position, two courses are open: 1, infraction of the middle turbinate; 2, resection of the anterior third of the middle turbinate each according to indications, which, after being done, we proceed to introduce a suitable sound which is followed by a catheter, and irrigation, with

boric acid, or permanganate of potassium, or 1-4,000 formalin solution, a gold tube the upper end of which has been sprung together and covered with a gelatine capsule, is slipped on an applicator and passed up the canal as far as possible, into the frontal sinus.

If, in spite of frequent irrigations, the condition of the patient showed very little improvement, should we advise an external operation? The question should be answered in the negative. It is yet possible to obtain considerably more room by resecting the uncinate process and curetting the anterior ethmoid cells lying in apposition to the semilunar hiatus; the fact that the ethmoid cells are practically always involved, strengthens considerably the indications for this operation.

If the treatment outlined fails, then we must resort to the external operation, the indications for which are as follows:

1. When other forms of operation have failed.
2. The appearance of a fistula, abscesses, or necrosis.
3. When symptoms of intracranial complications appear.
4. When, during the course of a chronic frontal sinusitis, pain and fever suddenly appear and the discharge becomes fetid.
5. When the headache referred to the eye is not influenced by intranasal procedures.
6. When the discharge remains fetid despite frequent irrigations.
7. When the sinus inflammation gives rise to recurrent polypoid hypertrophies and polyp formations.
8. When a simple purulent discharge is not relieved by intranasal measures and the patient is anxious to procure permanent relief from his annoying symptoms.

I should like to consider treatment of the sphenoid and the maxillary sinuses, but will say the management of diseases in them is in general the same as outlined for the ethmoid cells and the frontal sinus.

BETANAPHTHOL BENZOATE (Merck).—A nonproprietary preparation of betanaphthol benzoate (see New and Nonofficial Remedies, 1915, p. 210). Merck & Co., New York (Journal A. M. A., September 4, 1915, p. 877).

THE JOURNAL

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ANONYMOUS COMMUNICATIONS.

Anonymous communications will not appear in the columns of this Journal, no matter how meritorious they may be.

Editorials.

THE MAY MEETING AT TEXARKANA.

The annual meeting of the Arkansas Medical Society will be held at Texarkana, May 2, 3 and 4.

Remember the dates.

Also be sure to be there.

This promises to be a most profitable meeting—one which no member can well afford to miss. You are not going to be bored with long and tedious papers. The Committee on Scientific Program has purposely reduced the number of papers. At the last meeting there were too many papers and some of them were too long. The result was that some were never reached at all and the days were consumed with the reading of papers. Fewer papers and fuller discussion is better than too many essays with discussion cut off. Ample time for the discussion of each paper read will be given, even if that entails omitting some papers.

The scientific sessions will be held in the Presbyterian Hall, corner of Third and Pine Streets.

The House of Delegates, commercial exhibits and Registration Bureau will be in the Elks' Clubrooms, Vine Street, between Broad and Third Streets.

On Wednesday evening, May 3, a public meeting will be held in the Congregational Tabernacle, corner of Sixth Street and State Line.

The scientific exhibit of the laboratories of the Medical Department of the University of Arkansas will be held in a room adjoining that in which the scientific sessions are held.

So much for the business of the convention.

The next feature is the entertainment of the delegates and ladies. The chairman of the Entertainment Committee writes that everything possible has been done to insure a good time for all who attend the meeting. He says Texarkana realizes that when the meeting was held there in 1901 the hotel accommodations were not wholly satisfactory, but that ample accommodations exist now. It is hardly necessary to remind any reader of The Journal that the Texarkana, or the Little Rock, or the Fort Smith, or the Arkansas of 1901 is entirely different from the same city and state of 1916; so that there should be no uneasiness on that score.

For the ladies there will be an automobile ride Tuesday afternoon, starting from the Huckins Hotel at 3 p. m.; Tuesday night a picture show party at the Royal Theater at 7:30 p. m., followed by an informal reception at the Hotel Sargent, corner Third and State Streets, from 9:30 to 12 p. m. Wednesday afternoon the Wednesday Music Club will have an open meeting at the First Baptist Church, corner Fourth and Pine Streets, at 3 p. m.

Following are the leading hotels and rates:

Huckins House, American plan only, \$2.00 to \$2.50 a day.

Cosmopolitan, European plan only, with dining room attached, 75 cents to \$1.25 a day.

Holman Hotel, European plan only, 75 cents to \$1.50 a day.

Hotel Sargent. (Rates not given.)

Special railroad rates have been secured on all lines except on the Missouri and North Arkansas. Where the regular fare one way exceeds \$1.50, the round-trip rate will be the single fare plus one-third.

In submitting this outline of the meeting in all its phases, we hope that its attractiveness will appeal to the members and that a record attendance will result.

A WELCOME MOVEMENT.

The Journal wishes to express its endorsement and pleasure in regard to the proposed demonstration of the fact that Arkansas malaria can be controlled and eliminated by scientific methods. The United States Public Health Service, with the State Health Department co-operating, proposes to establish camps at places, not extreme either as hotbeds of malaria or as being comparatively free from it, and by war on the mosquito and by sanitary precautions, demonstrate that the prevalence of malaria anywhere is due to preventive conditions. Such demonstrations will surely ultimately convince our people that carelessness and disease are almost synonymous terms. The average citizen is hard to convince, but facts will influence him where theory goes unheeded. In the last analysis it is the co-operation of the people that must be relied upon in any campaign against disease.

CONSERVATION OF VISION.

The American Medical Association, through its Council on Health and Public Instruction, is conducting a nation-wide campaign of lectures on conservation of vision. Each state has a manager and a Lecture Bureau. Dr. H. Moulton of Fort Smith is manager for Arkansas.

It is desired to have as many popular lectures as possible delivered in this state this year.

The object is to disseminate information about ophthalmia neonatorum, trachoma, injuries and other diseases which frequently cause blindness. Prevention is to be emphasized.

Another object is to induce schools to institute examinations of eyes and ears of school children, and to show the importance of such examinations as a means of saving eyesight and hearing and increasing the student's efficiency. The lecturers show the teachers how to make these examinations. It has been found that the slight extra work on the part of the teachers in making these examinations is more than compensated by the increased efficiency of the children in their studies, which greatly lessens the teacher's labors.

The evil of neglected eye disease is all but too common. If we would stamp out only ophthalmia neonatorum, our state would save

many thousands of dollars annually. Ophthalmia neonatorum can be stamped out. Many other eye diseases can be alleviated by sanitation.

Let us tell the people now, and show them the kind of laws they need, to do these things.

If any medical man in the state cares to undertake a lecture or so, he will be doing good, and will be given an opportunity if he will write to Dr. Moulton.

Also, if any county society will arrange for a public meeting where these questions can be discussed, Dr. Moulton will send a lecturer, or the lecturer may be selected from the community where the lecture is to be given. Dr. Moulton will send to any county society applying, a box of stereopticon slides to be used in illustrating these subjects. As there is but one set of these slides, it will have to be passed from one to another county as they apply.

Anyone interested will please write to Dr. H. Moulton of Fort Smith.

Editorial Clippings.

THE RELIGION OF A PHYSICIAN.

Religion has its roots in the feelings aroused by "the great biological crises of marriage and birth, of sickness and death. The religious emotion consecrates such elemental concerns—its objective, in a word, is *life*." There are reasons, therefore, why the physician should be religious above all other men; he, more than anyone else, contemplates objectively the most striking phenomena which in all ages have set men questioning as to human existence, its why, its whence, its whither. It is his province to lessen the danger attendant upon man's entrance into life, to prevent unnecessary suffering, and to put off the time of his final dissolution. It devolves upon the priest to explain these mysteries in terms as comprehensible as possible to the mind of his people, and to soothe and strengthen the soul in its experience of these great upheavals. The priest attempts to reconcile man to Nature's laws, the physician to adjust him thereto. Both war against sin, which consists in ignorance, or willful breaking of those laws.

What does the physician believe? What is his attitude toward current doctrines? His

formulas of the universe are probably as diverse as those of other men. He sees life, however, from a somewhat different point of view. His minute study of the human microcosm tends more and more to make him humble before the power which works so mightily in all things, for the farther we delve into the mysteries of life, the more intricate do the paths become and the wider is the view of what is beyond and yet to be learned. Again, the physician's wholesale contemplation of birth and death impresses upon him the problem of immortality, and should cause him more than others, to reach out in spirit toward a continued existence for the individual.

The suffering and sorrow and "unfulfilled completions" attendant upon sickness and death would be intolerable even for the physician if these were not set off against a bright background of love, of sympathy, and of sacrifice. These impress him that what we experience here is but the expression to dull human comprehension of the great reality, where most comprehensive name must be Illimitable Truth. There is no need of special interferences with the laws of the universe—in other words, of miracles—to move the physician to religion. For him all things are miracles.

It is perhaps characteristic of the physician that he would not wish to dogmatize on religious faith. His study and experience rather preclude tendencies to such permanent crystallization of thought, even if he did not prefer to leave such a function to his co-worker, the doctor of divinity. His doctrines may be few and vague, but his hope and his faith are not less intense than those of other men. His work tends to broaden faith and obliterate creed, for, as he sits in his comfortably cushioned pew, his mind may wander to a poorly furnished tenement from whence he lately issued, where, surrounded by tawdry pictures of saints, illumined by candles bought at great sacrifice, a mother kneels beside a cradle and fervently counts her beads. The church walls vanish and for him there are no doctrines save that love is, and that love persists; and no creeds save belief in the holiness of man. For him "every meal becomes a Eucharist; every marriage a sacred union; every home has its holy family; every mother is a madonna; and every babe is a son of God."

Coming to the practical side of religion, the physician can feel more free to express

himself in positive terms. In helping in the cure of disease, but more especially in its prevention, he may feel that he adds much to the general fullness and happiness of life. His great Exemplar went about healing the sick and doing good. Sydenham wrote, "I have always thought that to have published for the benefit of afflicted mortals any certain method of subduing even the slightest disease was a matter of greater felicity than the riches of a Tantalus or a Cræsus."

As for his personal life, though it may not be always above reproach, yet from the time of the Greeks and, doubtless for ages sooner, the physician of impure motives and low aims has been debarred from association with his class.

That physicians lend their minds to the subject of religion is evidenced by the reverence pervading the writings of Austin Flint, Hufeland, Cheyne, Sydenham, Boerhaave, and others, while the *Religio medici* of Sir Thomas Browne is refreshing literature after two and a half centuries. We do not believe that doctors are less religious now than formerly, though they may be less outspoken on the subject. We believe, rather, that they shrink from trying to put in words what words always fail to express. Perhaps, when approached on the subject, they would imitate the great lexicographer who, when questioned by a woman of missionary spirit as to his beliefs, replied that his religion was the religion of all sensible men. On further interrogation as to what the religion of all sensible men might be, he quieted his interviewer with the answer: "That, madam, is what every sensible man keeps to himself."—New York Medical Journal.

Personals and News Items.

Dr. J. H. Kennerly of Batesville visited in Little Rock last month.

Dr. Warren Kelly of Benton visited in Little Rock this month.

Dr. J. M. Phillips of Benton visited in Little Rock this month.

Dr. C. P. Meriwether of Little Rock visited in St. Louis last month.

Dr. and Mrs. Robert Caldwell of Little Rock have returned from Chicago.

Dr. C. E. Robinson and Dr. R. M. Enbanks of Little Rock have dissolved partnership.

Dr. Sam J. Allbright has moved from Bellefonte to Center Hill.

Do you know that open air is the best spring tonic?

Do you know that typhoid fever is a disease peculiar to men?

Do you know that the careless sneezer is the great grip spreader?

Do you know that measles kill over 11,000 American children annually?

Do you know that four per cent of the inhabitants of certain sections of the South have malaria?

Do you know that there has not been a single case of yellow fever in the United States since 1905?

Do you know that the United States Health Service has trapped 615,744 rodents in New Orleans in the past eighteen months?

Do you know that the United States Public Health Service believes that the common towel spreads trachoma, a disease of the eyes?

Do you know that children from sanitary homes advance more rapidly in school than those from dirty premises?

Dr. and Mrs. James Searborough of Little Rock have returned from an extended trip East.

Dr. J. L. Jones of Searcy, secretary of the White County Medical Society, visited in Little Rock this month.

The Arkansas secretaries will have a smoker-luncheon Tuesday evening, May 2, at Texarkana.

Dr. Earle H. Hunt, Clarksville; W. B. Lawrence, Batesville; R. A. Hilton, El Dorado, visited in Little Rock this month.

Dr. Wm. Breathwit of Pine Bluff has been chosen a member of the School Board to fill the vacancy caused by the death of Virginius Wilkins.

The Arkansas Alumni of the Medical Department of the Tulane and Washington Universities will give a banquet during the Texarkana session of the State Society.

Your check sent to your county secretary before April 15 will cause your reinstatement to full membership if you have neglected to

pay your 1915 dues. Prompt compliance is imperative.

Dr. Aris W. Cox of Helena, secretary of the Phillips County Medical Society, is spending two months in New York City doing some special work in diseases of the eye, ear, nose and throat.

Dr. H. H. Smiley, acting chief-surgeon of the Cotton Belt Railroad, announces that the Cotton Belt Surgeons' Association will have a meeting and luncheon at the Cotton Belt Hospital on Wednesday, May 3, at 12 o'clock noon.

Unless you have paid your state and county dues to your county secretary, this will be the last issue of The Journal you will receive, and your name will be dropped from the active list of membership in the Arkansas Medical Society.

Readers of The Journal are reminded of the courtesy due to the advertisers in these pages, whose support is largely responsible for the success of The Journal. These advertisers would not be here if they were not reliable. Your support protects you, boosts us and tickles them.

The next examination for admission into the Medical Corps of the Navy will be held on or about June 16, 1916. Full information with regard to physical and professional examinations, with instructions how to submit formal applications, may be obtained by addressing the surgeon general of the navy, Navy Department, D. C.

The American Journal of Gastroenterology has combined with the Proctologist, and hereafter will be published as the Proctologist and Gastroenterologist, from St. Louis. Dr. Lewis Brinton, Philadelphia, and Dr. Anthony Bassler, New York, will have editorial charge of gastroenterology; Dr. A. L. Benedict, Buffalo, editor of dietetics; Dr. Rollin H. Barnes, St. Louis, will be managing editor and publisher.

Who would have thought that the tin can is a menace to the public health? The expert malaria investigators of the United States Public Health Service have found, however, that discarded tin cans containing rain water are breeding places for the mosquito which is the sole agent in spreading malaria. A hole in the bottom of the empty can might have

resulted in the saving of a human life. Certainly it would have assisted in preventing a debilitating illness. Empty tin cans have no business about the premises anyway; but if we must so decorate our back yards, let's see to it that the can has a hole in the bottom.

Through the efforts of Dr. Loyd Thompson of Hot Springs and Dr. Wm. H. Parks, superintendent of the Hot Springs Reservation, a free clinic has been established at the Government Free Bath House.

The purposes of this clinic as set forth in the regulations, are to furnish free medical aid to the indigent patrons of the Government Free Bath House, to study the clinical efficacy of the waters of Hot Springs, and to exclude from the bath house cases which might menace the safety of its patrons.

The following clinics will be maintained for the present: Medical, Dermatological and Syphilis, Genito-Urinary, and Neurological.

The medical clinic will be under the direction of Drs. Wm. H. Deaderick and John M. Proctor; the dermatological and syphilis clinic under the direction of Dr. Loyd Thompson; the genito-urinary clinic under the direction of Drs. E. H. Martin and E. A. Purdum, and neurological clinic under the direction of Dr. J. L. Greene.

Assistants of the various clinics will be chosen from among physicians of the city.

Dr. Wm. H. Deaderick was elected chief of the clinic, and Dr. Loyd Thompson, secretary.

REDUCED RAILROAD RATES TO TEXARKANA.

We have been informed that interested railway lines have individually announced their intention to authorize the following fares and arrangements to apply in the sale of tickets from all points in Arkansas to Texarkana and return on account of the annual meeting of the Arkansas Medical Society, May 2, 3, 4, 1916.

Fares: Practically fare and one-third.

Dates of sale: Tickets to be on sale April 30, May 1 and 2, 1916.

Final return limit: Tickets to be limited to return to reach original starting point prior to midnight of May 6, 1916.

Tickets to be good going, commencing date of sale and for continuous passage in each direction.

In this connection we wish to mention that the M. & N. A. Railroad is not included.

PLANS OF THE NATIONAL CONFERENCE OF CHARITIES AND CORRECTION, WHICH IS TO MEET AT INDIANAPOLIS, MAY 10-17.

Health conditions will be linked with nearly every phase of the problems of charity and correction to be considered at the forty-third annual meeting of the National Conference of Charities and Correction at Indianapolis, Ind., May 10 to 17. One section, that on health, will be devoted entirely to a discussion, by physicians, of the part the medical practitioner and surgeon may play in social work.

In the section meetings there will be a symposium on disease, ill health, and sickness, and their bearing upon crime, insanity, and poverty. The speakers will be Dr. David C. Peyton, superintendent of the Indiana Reformatory, and Dr. S. E. Smith, superintendent of the Eastern Hospital for the Insane, at Richmond, Ind. Dr. E. R. Hayhurst, of the Ohio State Board of Health, will lead a discussion of industrial hygiene. The relation of venereal diseases to public and individual health will be considered by Dr. C. S. Woods, superintendent of the Methodist Hospital, Indianapolis, and Dr. William F. Snow, secretary of the American Social Hygiene Association. A number of dental surgeons will also participate by giving their views on the relation of oral hygiene to public and individual health.

Other sections allied in subject-matter to that on health will take up the problem of inebriety and the relation of feeble-mindedness and insanity to social questions. The former division of the conference will make a distinct contribution by presenting the results of an inquiry among large employers as to results attained from their prohibition of drinking among employees.

A broad field of community problems will be covered by six other sections of the conference. That on the family and the community will take up the co-ordination of civic effort in small communities. In its general session

it will consider conditions adverse to efficient public work under Democratic government.

A section on unemployment will examine into the degree to which social workers are prepared for the next period of stress. Graham Romeyn Taylor, of The Survey, is in charge of a section on the promotion of social programs, in which representatives of labor, business men, editors and public officials will give their ideas on the relation of social workers' programs to the community in general.

The growing tendency to put relief work in the hands of public agencies will occupy much of the attention of a section on public and private charities. Problems connected with the organization and administration of charity work and the keeping of proper records will also be discussed.

The conference will be opened on the evening of May 10 with an address by the president, Father Francis H. Gavisk, in which the keynote of the entire gathering will be struck. A talk of exceptional public interest will also be given at this inaugural session by Ernest P. Bicknell, director of civilian relief of the American Red Cross. Mr. Bicknell will discuss war relief and his own experiences close to the firing lines in the various European war zones.

PRACTICAL LUNCHESES FOR SCHOOL CHILDREN.

What shall school children be given to eat at noon in the lunch basket, at the home lunch table, or in the lunchroom operated by the school authorities? To help answer this question, which almost every mother and many of the educational authorities are asking constantly, the United States Department of Agriculture, through the office of Home Economics, has just issued Farmers' Bulletin No. 712, "School Lunches." This bulletin was prepared by Miss Caroline L. Hunt and Miss Mabel Ward, under the direction of Dr. C. F. Langworthy of the State Relations Service. The bulletin, after discussing the general principles of feeding school children to provide for activity and develop them into sturdy manhood and womanhood, gives a number of simple and appetizing menus for the lunch basket and bill of fare and recipes for preparing inexpensive and nourishing noonday meals or hot dishes for children, either at home, on a school stove, or in a domestic science kitchen.

BULLETIN No. 4.

DEAR DOCTOR:

You spent your money to secure a medical education; you offer the public your best service; you are honest in your work, sincere in your efforts, and faithful in your trust. The above being true, does it not seem reasonable that your friends, your neighbors, the community in which you live, should retain you when a physician's services are required?

NOW, apply this principle to the advertisers in this Journal. They want your business; they spend large sums in preparing to supply the things you need; and more money in bringing those goods to your notice. They make honest goods, and honest prices; and guarantee them as you guarantee to give your clients the best you can.

These advertisers are trying to "build up a practice" with you and other physicians in your state as their clients. Now, is it not fair to ask you to patronize the firms who advertise in your own state Journal?

Do as you would be done by; employ your own advertisers. Call them in when you need their services. Don't write or phone a stranger. Build your patronage on the same principle that you build your practice. *Patronize your own advertisers.*

"LOYALTY FIRST" is a good slogan when buying goods.

If you do not find advertised in these pages what you want, write us, or our advertising representative, THE CO-OPERATIVE MEDICAL ADVERTISING BUREAU, 535 N. DEARBORN ST., CHICAGO. They will supply you all the information they can, and *absolutely* without any cost to you. *Co-operation is the life of our society.*

YOUR EDITOR.

DOCTOR WANTED—Fine location. Small town in Washington County on Frisco R. R. Big territory; \$2,000.00 practice. Seven-room house. Two-thirds acre in lot. A hustler's opportunity. Address: Postmaster, Durham, Ark.

LOCATION WANTED—Location wanted in fair-sized city or suburb in healthy, warm, equable climate. Prefer to associate with ethical party, temporary or permanently. Graduate 1912, age 39, general practice, hospital experience, but not major surgery. Reason for change desired on account of wife's chronic rhinitis. References furnished and required. Dr. H. J. Friedman, Rib Lake, Wis.

PROGRAM

Fortieth Annual Session

OF THE

ARKANSAS MEDICAL SOCIETY

Texarkana, May 2, 3, 4, 1916.

HEADQUARTERS, HUCKINS HOUSE.

President—J. C. Wallis, Arkadelphia.

First Vice President—J. C. March, Fordyce.

Second Vice President—F. T. Murphy, Brinkley.

Third Vice President—O. M. Bourland, Van Buren.

Treasurer—Wm. R. Bathurst, Little Rock.

Secretary—C. P. Meriwether, Little Rock.

Councilor Districts and Councilors, 1915-1916.

First Councilor District—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph Counties. Councilor, F. L. Nelson, Cornang. Term of office expires 1917.

Second Councilor District—Clebborne, Fulton, Independence, Izaard, Jackson, Sharp and White Counties. Councilor, L. T. Evans, Barren Fork. Term of office expires 1916.

Third Councilor District—Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis and Woodruff Counties. Councilor, H. H. Rightor, Helena. Term of office expires 1917.

Fourth Councilor District—Ashley, Bradley, Chicot, Cleveland, Desha, Drew, Jefferson and Lincoln Counties. Councilor, E. C. McMullen, Pine Bluff. Term of office expires 1916.

Fifth Councilor District—Calhoun, Columbia, Dallas, Lafayette, Ouachita and Union Counties. Councilor, H. H. Henry, Eagle Mills. Term of office expires 1917.

Sixth Councilor District—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier Counties. Councilor, C. A. Archer, DeQueen. Term of office expires 1916.

Seventh Councilor District—Clark, Garland, Hot Spring, Montgomery, Saline, Scott and Grant Counties. Councilor, J. B. Crawford, Benton. Term of office expires 1917.

Eighth Councilor District—Conway, Johnson, Faulkner, Perry, Pulaski, Yell and Pope Counties. Councilor, W. A. Snodgrass, chairman, Little Rock. Term of office expires 1916.

Ninth Councilor District—Baxter, Boone, Carroll, Marion, Newton, Searcy, Stone and Van Buren Counties. Councilor, Leonidas Kirby, Harrison. Term of office expires 1917.

Tenth Councilor District—Benton, Crawford, Franklin, Logan, Sebastian, Madison and Washington Counties. Councilor, J. T. Clegg, Siloam Springs. Term of office expires 1916.

Delegates to American Medical Association—Robert Caldwell, Little Rock; R. C. Dorr, Batesville.

COMMITTEES.

Committee on Arrangements.

R. H. T. Mann, Preston Hunt, L. J. Kosminsky, E. N. Watts, K. M. Kelly, Texarkana.

Committee on Scientific Program.

Wm. R. Bathurst, chairman, Little Rock.

Frank Vinsonhaler, Little Rock.

C. P. Meriwether, Little Rock (ex-officio).

Committee on Medical Legislation.

Morgan Smith, chairman, Little Rock.

Anderson Watkins, Little Rock.

William Breathwit, Pine Bluff.

J. C. Wallis, Arkadelphia (ex-officio).

C. P. Meriwether, Little Rock (ex-officio).

Committee on Board of Visitors to the Medical Department of the University of Arkansas.

H. N. Dickson, chairman, Paragonld.

N. R. Townsend, Arkadelphia.

T. J. Stout, Brinkley.

Committee on Necrology.

R. H. T. Mann, chairman, Texarkana.

M. Fink, Helena.

J. B. Roe, Newark.

Committee on Trained Nurses.

J. G. Eberle, chairman, Fort Smith.

J. D. Southard, Fort Smith.

C. M. Lutterloh, Jonesboro.

Committee on Health and Public Instruction.

F. B. Young, chairman, Little Rock.

John Stewart, Booneville.

St. Cloud Cooper, Fort Smith.

Committee on Sanitation and Public Hygiene.

C. W. Garrison, chairman, Little Rock.

H. Thibault, Scott.

T. M. Fly, Little Rock.

Committee on Cancer Research.

M. D. Ogden, chairman, Little Rock.

H. H. Kirby, Little Rock.

W. A. Snodgrass, Little Rock.

Committee on Memorial Tablet in Memory of the Late Dr. John S. Shibley.

L. P. Gibson, chairman, Little Rock.

J. G. Eberle, Fort Smith.

A. E. Hardin, Fort Smith.

Frank Vinsonhaler, Little Rock.

M. D. Ogden, Little Rock.

Committee on First Aid.

E. N. Allen, chairman, Little Rock.

W. F. Smith, Little Rock.

G. A. Warren, Black Rock.

ANNOUNCEMENTS.

The House of Delegates will meet at the Elks' Club on Vine Street. The scientific session will be held in the Presbyterian Hall, corner of Third and Pine Streets.

The registration desk will be in the Elks' Club.

ENTERTAINMENT.

Tuesday Afternoon—Automobile ride for the ladies, starting from the Huckins House at 3 p. m.

Tuesday Evening—Picture show party at the Royal Theater at 7:30 p. m., followed by an informal reception at the Hotel Sargent, corner Third and State Streets, 9:30 to 12 p. m.

Tuesday Evening—Smoker: County Secretaries' Association, Huckins House.

Wednesday Noon—Luncheon: Cotton Belt surgeons at the Cotton Belt Hospital.

Wednesday Afternoon—The Wednesday Music Club will have an open meeting at the First Baptist Church, corner Fourth and Pine Streets, at 3 p. m., in honor of the visiting ladies.

Wednesday, 8 P. M.—Public health session.

Wednesday, 9 P. M.—Alumni banquets.

NOTICE.

All papers read at this meeting are the property of the Arkansas Medical Society, and as soon as read, should be handed to Dr. C. P. Meriwether, secretary.

THE COMMERCIAL EXHIBIT.

Elks' Clubrooms.

The commercial exhibit promises to be of high grade and one of the best ever given in connection with the State Medical Society.

HOUSE OF DELEGATES.

The annual meeting of the House of Delegates of the Arkansas Medical Society will be held on May 2, 1916, at 9 a. m., at the Elks' Clubrooms, on Vine Street between Broad and Third Streets, Texarkana.

J. C. Wallis, president.

C. P. Meriwether, secretary.

Calling meeting to order, by J. C. Wallis, president.

Invocation, by Rev. P. C. Fletcher.

Address of welcome, by T. F. Kittrell of Texarkana.

Response to address of welcome on behalf of the delegates of the Arkansas Medical Society, by L. P. Gibson, Little Rock.

Appointment of Committee on Credentials.

Calling roll of delegates.

Reading of minutes of last meeting.

Appointment of Reference Committee.

President's address to the House of Delegates.

Report of Committee on Scientific Program—Wm. R. Bathurst, Little Rock, chairman.

Report of Committee on Legislation—Morgan Smith, Little Rock, chairman.

Report of Committee, Board of Visitors to the Medical Department of the University of Arkansas—H. N. Dickson, Paragould, chairman.

Report of Committee on Necrology—R. H. T. Mann, Texarkana, chairman.

Report of Committee on Trained Nurses—J. G. Eberle, Fort Smith, chairman.

Report of Committee on Public Health and Public Instruction—F. B. Young, Little Rock, chairman.

Report of Committee on Sanitation and Public Hygiene—C. W. Garrison, Little Rock, chairman.

Report of Committee on Cancer Research—M. D. Ogden, Little Rock, chairman.

Report of Committee on Memorial Tablet in Memory of the Late Dr. John S. Shibley—L. P. Gibson, Little Rock, chairman.

Report of Committee on First Aid—E. N. Allen, Little Rock, chairman.

Report of Delegates to the 1915 Session of the American Medical Association—Robert Caldwell, Little Rock.

Report of Committee on Arrangements—R. H. T. Mann, Texarkana, chairman.

Report of Council—W. A. Snodgrass, Little Rock, chairman.

Report of secretary.

Report of treasurer.

Reading of communications.

Reading of memorials and resolutions.

Selection of the Nominating Committee.

Selection for the State Board of Medical Examiners.

Miscellaneous business.

Adjournment, subject to call of the president.

FORTIETH ANNUAL SESSION.

Tuesday, May 2.

GENERAL SESSION, 2:00 P. M.

Calling the society to order, by J. C. Wallis, president.

Invocation, by Rev. F. E. Maddox.

Address of welcome, by Hon. J. D. Sanderson, mayor of Texarkana.

Address of welcome, by L. J. Kosminsky, president of the Miller County Medical Society.

Response to the address of welcome on behalf of the Arkansas Medical Society, by Don Smith, Hope.

President's annual address, by J. C. Wallis, Arkadelphia.

SCIENTIFIC SESSION.

Tuesday, 4 P. M.

(The scientific session will begin immediately after the adjournment of the general session.)

"Nervous Conditions Associated with Pelvic Disorders"—By G. H. Moody, San Antonio, president State Medical Association of Texas. Discussion to be opened by Frank B. Young, Little Rock; T. F. Kittrell, Texarkana.

"A Plea for Breast Feeding and a Protest Against Unnecessary Weaning"—By Morgan Smith, Little Rock. Discussion to be opened by H. D. Wood, Fayetteville, and A. G. Lee, Texarkana.

"The Treatment of Diabetes by Allen's Method"—By A. H. Cook, Hot Springs. Discussion to be opened by Orvis Biggs, Hot Springs.

"Arteriosclerosis"—By Frank B. Young, Little Rock. Discussion to be opened by G. H. Moody, San Antonio, and L. P. Gibson, Little Rock.

Wednesday, 9 A. M.

"Splenectomy, with a Report of Case"—By W. F. Smith, Little Rock. Discussion to be opened by E. P. Bledsoe, Little Rock.

"Nephrolithiasis, with Report of Cases"—By J. P. Runyan, Little Rock. Discussion to be opened by H. H. Kirby, Little Rock, and Anderson Watkins, Little Rock.

"A Further Consideration of the Management of Fractures"—By Jas. A. Foltz, Fort Smith. Discussion to be opened by St. Cloud Cooper, Fort Smith, and W. F. Smith, Little Rock.

"Peritonitis"—By Chas. S. Holt, Fort Smith. Discussion to be opened by E. F. Ellis, Fayetteville, and M. E. Foster, Fort Smith.

"Differentiation Between Upper (Central) and Lower (Peripheral) Motor Neuron Involvement"—By G. B. Fletcher, Little Rock. Discussion to be opened by C. R. Doyne and R. F. Darnell, Little Rock.

"Report of a Case"—Dislocation of the Eleventh Dorsal Vertebra; Fracture of the Tenth, Eleventh and Twelfth Spinous Process of the Dorsal Vertebra; Paralysis of Both Legs—By J. M. Lemous, Pine Bluff. Discussion to be opened by R. C. Dorr, Batesville.

"Hemophilia; Report of an Unusual Case"—By James H. Chesutt, Hot Springs. Discussion to be opened by St. Cloud Cooper, Fort Smith.

"Erotomania"—By Thos. Douglass, Ozark. Discussion to be opened by C. S. Pettus, Little Rock.

"Common Fallacies in the Technical Diagnosis of Indigestion"—By E. D. Mollaud, Hot Springs. Discussion to be opened by T. M. Fly, Little Rock, and A. G. McGill, Little Rock.

Wednesday, 2 P. M.

"Experiences in Cataract Extraction"—By H. Moulton, Fort Smith. Discussion to be opened by F. Viusionhaler, Little Rock, and J. W. Scales, Pine Bluff.

"External Operations of the Frontal Sinus"—By R. H. T. Mann, Texarkana. Discussion to be opened by Robert Caldwell, Little Rock, and J. H. Buckley, Fort Smith.

"Maxillary Sinusitis"—By W. T. McCurry, Little Rock. Discussion to be opened by T. E. Fuller, Texarkana, and J. W. Ramsey, Jonesboro.

"Plastic Surgery of the Nose and Eyelids"—By L. H. Lanier, Texarkana. Discussion to be opened by John G. Watkins, Little Rock, and D. R. Dorente, Fort Smith.

"Eye Strain; Its Relation to the General Health"—By H. H. Rightor, Helena. Discussion to be opened by F. Viusionhaler, Little Rock; L. J. Kosminsky, Texarkana, and R. H. Huntington, Eureka Springs.

"Prevention of Deafness"—By Wm. Breathwit, Pine Bluff. Discussion to be opened by Thos. H. Cates, Little Rock, and I. H. Erwin, Newport.

"Feeble Mindedness"—By A. Warren Stearns, Boston, Mass. Discussion to be opened by R. F. Darrell and Geo. B. Fletcher, Little Rock.

"My Medical Treatment of Appendicitis"—By W. M. Wear, Paris. Discussion to be opened by W. H. Gibson, Webb City, and R. S. Thompson, Spielerville.

"A Case of Uncinariasis with Pylorospasm and Hyperchlordia"—By T. M. Fly, Little Rock. Discussion to be opened by C. W. Garrison, Little Rock.

"Metastatic Arthritis"—By A. G. Lee, Texarkana. Discussion to be opened by Nettie Klein, Texarkana; J. P. Runyan, Little Rock, and E. H. Martin, Hot Springs.

Thursday, 9 A. M.

"The Dangers of Pathological Developments"—By R. L. Saxon, Little Rock. Discussion to be opened by W. F. Manglesdorf, Little Rock, and J. I. Scarborough, Little Rock.

"Dysentery"—By Thos. F. Hudson, Luxora. Discussion to be opened by W. H. Deaderick, Hot Springs, and M. L. Norwood, Lockesburg.

"Carriers and Epidemics"—By C. W. Garrison, Little Rock. Discussion to be opened by A. G. Lee, Texarkana, and A. F. Hoge, Fort Smith.

"Eclampsia"—By J. W. Melton, Slocomb. Discussion to be opened by M. D. Ogden, Little Rock, and J. B. Roe, Newark.

"Radium—Its Physical Properties and Therapeutic Value"—By Dewell Gann, Jr., Little Rock. Discussion to be opened by A. M. Zell, Little Rock.

"The Relation of Education in Sexual Union to Eugenics and Conjugal Happiness"—By C. S. Pettus, Little Rock. Discussion to be opened by Chas. H. Cargile, Bentonville, and R. H. T. Mann, Texarkana.

"One Way Out"—By Don Smith, Hope. Discussion to be opened by H. H. Niehuss, El Dorado.

"The Skin Lesions of Syphilis" (illustrated with lantern slides)—By Loyd Thompson, Hot Springs.

THURSDAY AFTERNOON.

House of Delegates, 2:00 P. M.

GENERAL SESSION, 3:00 P. M.

Calling meeting to order, by J. C. Wallis, president.

Unfinished business.

Report of Nominating Committee.

Report of other committees.

Election of officers.

Selection of place for next meeting.

Adjournment *sine die*.

PUBLIC HEALTH SESSION.

Congregational Tabernacle, Corner Sixth Street and State Line,

Wednesday, May 3, 8:00 P. M.

"Social Problems of the Feeble-minded"—By A. Warren Stearns, Boston, Mass., representative of the National Committee of Hygiene.

"The Healthy Citizen"—By J. T. Clegg, Siloam Springs.

"Prophylaxis in Tuberculosis"—By John Stewart, Booneville.

"A Neglected Phase of Prevention of Disease"—By T. B. Bradford, Cotton Plant.

New and Nonofficial Remedies.

Since publication of New and Nonofficial Remedies, 1916, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies:"

RADIUM BROMIDE, W. L. CUMMINGS CHEMICAL COMPANY.—It complies with the standards of N. N. R. and is sold on the basis of its radium content. W. L. Cummings Chemical Company, Lansdowne, Pa.

RADIUM CARBONATE, W. L. CUMMINGS CHEMICAL COMPANY.—It complies with the standards of N. N. R. and is sold on the basis

of its radium content. W. L. Cummings Chemical Company, Lansdowne, Pa.

RADIUM CHLORID, W. L. CUMMINGS CHEMICAL COMPANY.—It complies with the standards of N. R. R. and is sold on the basis of its radium content. W. L. Cummings Chemical Company, Lansdowne, Pa.

RADIUM SULPHATE, W. L. CUMMINGS CHEMICAL COMPANY.—It complies with the standards of N. R. R. and is sold on the basis of its radium content. W. L. Cummings Chemical Company, Lansdowne, Pa.

BORCHERDT'S DRI-MALT SOUP EXTRACT.—A powder obtained by adding potassium carbonate, 1.1 gm. to each 100 gm. of Borchardt's Malt Extract and evaporating. Borchardt Malt Extract Company, Chicago.

BORCHERDT'S DRI-MALT SOUP EXTRACT WITH WHEAT FLOUR.—A powder obtained by evaporating 100 gm. Borchardt's Malt Soup Extract and 50 gm. wheat flour made into a paste. Borchardt's Malt Extract Company, Chicago.

BORCHERDT'S FINISHED MALT SOUP POWDER.—A powder obtained by evaporating 100 gm. Borchardt's Malt Soup Extract, 50 gm. wheat flour, made into a paste, and 330 gm. milk. Borchardt's Malt Extract Company, Chicago (Journal A. M. A., March 11, 1916, p. 815).

SAUBERMANN RADIUM EMANATION ACTIVATOR.—An apparatus for the production of radioactive drinking water by the action of radium sulphate. Each apparatus is designed to furnish about 500 c.c. radioactive water per day. The exact daily capacity and efficiency are guaranteed and are stated for each apparatus. The following strength generators are offered:

SAUBERMANN RADIUM EMANATION ACTIVATOR, 5,000 MACHE UNITS.—An apparatus which imparts about 3.6 microcurie (10,000 Mache units) to about 500 c.c. water daily.

SAUBERMANN RADIUM EMANATION ACTIVATOR, 20,000 MACHE UNITS.—An apparatus which imparts about 7.2 microcurie (50,000 Mache units) to about 500 c.c. water daily.

SAUBERMANN RADIUM EMANATION ACTIVATOR, 50,000 MACHE UNITS.—An apparatus which imparts about 18 microcurie (50,000 Mache units) to about 500 c.c. water daily. Radium Limited, U. S. A., New York (Journal A. M. A., March 18, 1916, p. 893).

Propaganda for Reform.

COLLOIDINE.—Colloidine (Boracol Chemical Company, agents) is claimed to be "a colloidal vegetable iodine combination," each tablet of which is stated to represent one-third grain iodine. Because of the colloidal character of the iodine compound, Colloidine is claimed to be an especially efficacious iodine preparation. The Council on Pharmacy and Chemistry reports that Colloidine is ineligible for New and Nonofficial Remedies, because, as shown by examination in the A. M. A. Chemical Laboratory, the iodine was deficient in amount and in a form of an iodide or in a form which so readily yields iodide that the therapeutic effects of Colloidine would seem to be those of iodides; and because the therapeutic claims were unwarranted (Journal A. M. A., March 11, 1916, p. 831).

EMETIC ACTION OF DRUGS.—The investigation of R. A. Hatcher and C. Eggleston show that the nauseant and emetic action of many drugs is not due to their effects on the stomach, but to a central action on the "vomiting center." Practically all alkaloids and alkaloidal drugs which have emetic properties, including morphine and preparations containing it, emetin, cephaelin, quinine, nicotine, lobeline, pilocarpine, aconite and veratrine, ergot and apomorphine, which produce nausea or vomiting as their chief or side actions, do so by direct effect on the vomiting center. Sodium salicylate, picrotoxin and digitalis also produce vomiting through central action. These investigations show the futility of the many devices which have been employed in attempts to avoid the nausea or emesis produced by many drugs as an undesired side effect (Journal A. M. A., March 11, 1916, p. 817).

CLINICAL REPORT ON ARSENOBENZOL.—"Arsenobenzol" is being made by the Dermatological Laboratories of the Philadelphia Polyclinic. It is stated to be chemically identical with salvarsan. O. S. Ormsby and J. H. Mitchell report a series of 184 injections given to seventy-five patients suffering with syphilis in its various stages. They report that the action of this drug has been uniform, its toxicity low, and its therapeutic results excellent (Journal A. M. A., March 18, 1916, p. 867).

ENDORSE THE COUNCIL ON PHARMACY AND CHEMISTRY.—The following resolution was

presented at the San Francisco meeting of the A. M. A., and signed by all the members of the House of Delegates in attendance: "*Resolved*, We, members of the House of Delegates of the American Medical Association, believe that every effort must be made to do away with the evils which result from the exploitation of the sick for the sake of gain. Earnestly believing that the continued toleration of secret, semisecret, unscientific or untruthfully advertised proprietary medicines is an evil that is inimical to medical progress and to the best interest of the public, we declare ourselves in sympathy with, endorse, and by our best efforts will further the work which has been and is being done by the Council on Pharmacy and Chemistry of the American Medical Association in the attempt to eliminate this evil" (Journal A. M. A., March 18, 1916, p. 910).

THE REQUIREMENTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY.—New and Non-official Remedies contains the rules which govern the council in the admission of remedies to this book. These rules merely require that the composition of a remedy be non-secret, that its uniformity be safeguarded, that no false claims be made regarding its therapeutic properties, and that its use shall be at least based on a probability of therapeutic merit. A simple way of determining if a certain preparation complies with the council's rules, is to see if it is described in New and Nonofficial Remedies (Journal A. M. A., March 18, 1916, p. 913).

LARKSPUR FOR PEDICULOSIS CAPITIS.—Various formulas for tincture of larkspur for use against pediculosis capitis have been published, but larkspur is poisonous and harm may result where there are abrasions of the skin. Many prefer kerosene. It is applied under a suitable cap. After twenty-four hours the hair is combed to remove nits and then washed (Journal A. M. A., March 18, 1916, p. 913).

HEXAMETHYLENAMIN AND URIC ACID.—If further evidence were necessary to show the futility of administering formaldehyde derivatives like hexamethylenamin as uric acid solvents, it could be found in the observations recorded by Haskins under the auspices of the Committee on Therapeutic Research of the Council on Pharmacy and Chemistry. While the administration of excessive doses may produce slight solvent action, Haskins

points out that the required dose of hexamethylenamin is too large and an equal or better effect can be produced more readily by administration of alkaline diuretics or sodium bicarbonate in reasonable quantities (Journal A. M. A., March 25, 1916, p. 962).

VENARSEN, VENOMER AND VENODIN.—The A. M. A. Chemical Laboratory found Venarsen, which is recommended by the manufacturers, the Intravenous Products Company, for the treatment of syphilis, tuberculosis, pellagra and other diseases, to be "a simple solution containing approximately 9 grains of sodium eacodylate, 1-40 grain of mercury 'biniodid' and $\frac{3}{4}$ grain of sodium iodid to each full dose." Sodium eacodylate is inferior to salvarsan or neosalvarsan in the treatment of syphilis. The Council on Pharmacy and Chemistry held the claims made for Venarsen unwarranted and its intravenous injection uncalled for. Venomer, which is also offered as an antisyphilitic remedy, appears to be a variation on Venarsen, containing considerably less sodium eacodylate and considerably more mercury and iodid. It prompts the comment that a careful physician would not give arsenic and mercury in fixed proportions. Venodin was rejected by the Council on Pharmacy and Chemistry because the claims made for it were found unwarranted and its composition unscientific. The indiscriminate use of intravenous products is objectionable for many reasons. It incurs an unnecessary danger, and it puts the physician to needless trouble and the patient to unnecessary expense (Journal A. M. A., March 25, 1916, p. 978).

Married.

SCARBOROUGH-CARTER.—In Baltimore, Md., on Thursday, March 16, Dr. James Scarborough of Little Rock and Mary Roberta Carter of Baltimore.

District Societies.

TENTH COUNCILOR DISTRICT MEDICAL SOCIETY.

(Reported by S. D. Kirkland, Secretary, Van Buren.)

The Tenth Councilor District of the Arkansas Medical Society met March 21, 1916, at

Bentonville. The scientific program was as follows: "Relation of the Medical Profession to the Public," by J. T. Clegg, Siloam Springs; "Peritonitis," by Charles S. Holt, Fort Smith; "Empyema of Accessory Sinuses," by T. A. Coffelt, Springfield, Mo.; "The Menstrual Malimen," by Thos. Douglas, Ozark; "Pellagra," by O. M. Bourland, Van Buren; "Headache and Eye Strain," by D. R. Dorente, Fort Smith.

The following officers were elected: President, Charles S. Holt, Fort Smith; vice president, E. E. Pickens, Rogers; secretary and treasurer, S. D. Kirkland, Van Buren.

Fort Smith was chosen as the next meeting place.

County Societies.

YELL COUNTY.

(Reported by C. B. Linzy, Sec'y.)

Plainview, April 13.—The Yell County Medical Society met in this city April 11, 1 p. m. Members present: L. E. Love, A. D. Gillum, H. L. Montgomery, John Grace, J. H. Harkness, M. A. Worshem, J. L. Albright, W. E. Bollinger, C. B. Linzy.

The following officers were elected: L. E. Love, president; C. B. Linzy, secretary-treasurer; W. E. Bollinger, delegate to the State Society; L. E. Love, alternate.

A number of clinical cases were reported and elicited a general discussion.

The next meeting will be held on the second Tuesday in June, at Ola.

MONROE COUNTY.

(Reported by P. E. Thomas, Jr., Sec'y.)

Clarendon, March 15.—The Monroe County Medical Society met at Clarendon, March 14, A. H. Gilbrech presiding. Present: A. H. Gilbrech, P. E. Thomas, Sr., P. E. Terry, J. C. Miller, P. E. Thomas, Jr., H. H. Rightor of Helena, counselor of this district.

Dr. Stout was to have read a paper, but sent word that he could not get off, so the time was taken up in discussion of cases.

Dr. Rightor read a paper, "Diseases of Eye, Ear, Nose and Throat," giving symptoms and treatment of all cases he reported, and all were such as the practitioner meets nearly every day.

The society voted to change the meeting place back as before, namely, Clarendon,

Holly Grove and Brinkley. Next meeting will be held in Brinkley, and T. J. Stout and P. E. Terry have been appointed to read papers at the meeting.

JEFFERSON COUNTY.

(Reported by Fred C. Rowell, Sec'y.)

Pine Bluff, March 12, 1916.—The Jefferson County Medical Society met in Dr. Rowell's office March 7, 1916. The minutes of the last meeting were read and approved. Present: Lemons, Crump, Luck, Woodul, Palmer, Breathwit, Jordan, Spylliards, John, Blankenship, Gill and Rowell.

A. C. Jordan gave a very interesting outline of one of his cases in which he did a very interesting bone operation in which vicious union had taken place in the middle of the third humerus. The results obtained by Dr. Jordan were very encouraging. This coaptation of the bone was stationed by silver nails or bone pegs.

Wm. Breathwit gave an interesting discourse on the "Importance of the Early Case of Adenoid and Tonsil in Children." He called our attention to the importance of the adenoid operation being done in a thorough manner, and the relation these conditions have in later years.

J. F. Crump gave a talk on the relation that tonsillor trouble has in some of our so-called rheumatic and mestotatic conditions.

PHILLIPS COUNTY.

(Reported by Allen E. Cox, Acting Sec'y.)

Helena, March 11.—The Phillips County Medical Society met in this city March 11. There was a large attendance and a lively interest taken in the symposium on "The Business Side of a Doctor's Life." The sentiment as expressed was decidedly in favor of the members adopting modern or up-to-date business methods and rigidly adhering to them. The opinion was advanced and concurred in by the members that a doctor who adopts good business methods is a benefactor to his confreres, and certainly the scientific side of his life's work was emphasized. It was contended that both the scientific and business side of his work should go hand in hand.

Two new members were enrolled, after having been duly and regularly elected.

The society passed a resolution petitioning the county judge to set aside space at the new courthouse as an emergency hospital for certain cases not admitted to the Helena Hospital.

Book Reviews.

PRACTICAL CYSTOSCOPY AND THE DIAGNOSIS OF SURGICAL DISEASES OF THE KIDNEYS AND URINARY BLADDER.—By Paul M. Pilcher, M. D., Consulting Surgeon to the Eastern Long Island Hospital. Second edition, thoroughly revised and enlarged. Octavo of 504 pages, with 299 illustrations, 29 in colors. W. B. Saunders Company, Philadelphia and London, 1915. Cloth, \$6.00 net; half morocco, \$7.50.

This book gives the indications for cystoscopy, outlines its technic in the minutest detail, describes the instruments used and how to use them.

The diagnosis of diseases of the bladder, prostate, ureters and kidneys are taken up in separate chapters.

Pyelography occupies an entire new section. It gives its indications, technic, diagnostic value of radiographic studies of the ureter and kidney, the accidents and dangers of pyelography. An appendix is added which shows some useful special cystoscopes of American manufacture.

AUTOPLASTIC BONE SURGERY.—By Charles Davison, M. D., Professor of Surgery and Clinical Surgery, University of Illinois, College of Medicine; Fellow of the American College of Surgeons; Surgeon to Cook County and University Hospital, Chicago; and Franklin D. Smith, M. D., Clinical Pathologist to University Hospital, Chicago. Octavo, 369 pages, with 174 illustrations. Cloth, \$3.50 net.

The authors have succeeded in presenting, in clear and concise form, a vast array of facts and theories covering this important subject. The work brings to the reader not only the proved results of the authors' own practice and experimentation, but it also includes a painstaking resume of the literature which has appeared during the last few years.

Perhaps the most important section of the work is that which treats of the repair of intractable, recent, simple fractures by the autoplasmic transplantation of bone. It is to be hoped that the methods therein described will largely replace the use of metallic foreign bodies for fixation in fractures of this character which require open operation.

VENEREAL DISEASES.—A manual for students and practitioners. By James R. Hayden, M. D., F. A. C. S., Professor of Urology at the College of Physicians and Surgeons, Columbia University, New York; Visiting Genito-Urinary Surgeon to Bellevue Hospital; Consulting Genito-Urinary Surgeon to St. Joseph's

Hospital, Yonkers, New York. 12 mo., 365 pages, with 133 illustrations. Cloth, \$2.50 net. Lea & Febiger, publishers, Philadelphia and New York, 1916.

This new fourth edition will undoubtedly maintain the reputation of its predecessors. It has been carefully revised and considerably enlarged. The subject-matter has been brought fully up to date and the addition of numerous illustrations, for the most part showing the author's own cases and methods of treatment, has greatly enhanced the value and interest of the work.

Dr. Hayden covers the subject of venereal diseases in a very clear and concise manner. Of the thirty-six chapters in this book he devotes eighteen to the discussion of syphilis in all its phases, giving explicit directions both as to diagnosis and treatment. Nine chapters are given to the discussion of gonorrhea, and nine to other forms of venereal diseases. This allotment of space is in proportion to the importance and significance of the subject-matter.

OBSTETRICS.—A practical text-book for students and practitioners. By Edwin Bradford Cragin, A. B., A. M., (Hon.) M. D., F. R. C. S.; Professor of Obstetrics and Gynecology, College of Physicians and Surgeons, Columbia University, New York; Attending Obstetrician and Gynecologist to the Sloane Hospital for Women; Consulting Obstetrician to the City Maternity Hospital. Assisted by George H. Ryder, A. B., M. D., Instructor in Gynecology, College of Physicians and Surgeons, Columbia University, New York; Assistant Attending Obstetrician, Sloane Hospital for Women; Associate Surgeon, Woman's Hospital, New York. Octavo, 858 pages, with 499 engravings and 13 plates. Cloth, \$6.00 net.

The author's eminence as a specialist in the fields of obstetrics and gynecology, his remarkable success as a practitioner and an instructor, and his exceptional advantages and experience as Attending Obstetrician and Gynecologist to the Sloane Hospital for Women, combine to make the appearance of this new work an event of great interest and importance to the medical world. The work, in the methods advocated, is based upon the statistical results of the Sloane Hospital and upon the experience gained by the author in the hospital and in private practice. Another object of the work has been to present American statistics in obstetrics, which, it is believed, represent the most extensive and careful records available in this country.

The fact that many text-books now before the profession, although very valuable for reference, are too large for the undergraduate student, has been appreciated by the author, and he has covered the subject concisely, eliminating all unnecessary discussion.

OFFICERS OF THE AMERICAN MEDICAL ASSOCIATION, 1915-1916.

Next Annual Session, Detroit, Mich., 1916.

PRESIDENT—William L. Rodman, Philadelphia.
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EDITOR AND GENERAL MANAGER—George H. Simmons, 535 N. Dearborn St., Chicago.

BOARD OF TRUSTEES—W. W. Grant, Denver, 1916; Frank J. Lutz, St. Louis, 1916; Oscar Dowling, Shreveport, La., 1916; Philip Marvel, Atlantic City, 1917; Philip Mills Jones, San Francisco, 1917; W. T. Sarles, Sparta, Wis., 1917; M. L. Harris, Secretary, Chicago, 1918; W. T. Councilman, Chairman, Boston, 1918; Thomas McDavitt, St. Paul, 1918.

JUDICIAL COUNCIL—Hubert Work, Pueblo, Colo., 1916; Randolph Winslow, Baltimore, 1917; A. B. Cooke, Los Angeles, Cal., 1918; Alexander Lambert, Chairman, New York, 1919; James E. Moore, Minneapolis, Minn., 1920; Alexander R. Craig, Secretary, 535 N. Dearborn St., Chicago.

COUNCIL ON HEALTH AND PUBLIC INSTRUCTION—H. B. Favill, Chairman, Chicago, 1916; Walter B. Cannon, Boston, 1917; W. S. Rankin, Raleigh, N. C., 1918; H. M. Bracken, Minneapolis, 1919; Milton Board, Louisville, Ky., 1920; Frederick R. Green, Secretary, 535 N. Dearborn St., Chicago.

COUNCIL ON MEDICAL EDUCATION—W. D. Haggard, Nashville, Tenn., 1916; James W. Holland, Philadelphia, 1917; H. D. Arnold, Boston, 1918; Arthur D. Bevan, Chairman, Chicago, 1919; Robert C. Coffey, Portland, Ore., 1920; N. P. Colwell, Secretary, 535 N. Dearborn St., Chicago.

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COUNCIL ON PHARMACY AND CHEMISTRY—O. T. Osborne, New Haven, Conn., 1916; Torald Sollmann, Cleveland, 1916; M. I. Wilbert, Washington, D. C., 1916; Reid Hunt, Boston, Mass., 1917; J. H. Long, Chicago, 1917; Julius Stieglitz, Chicago, 1917; David L. Edsall, Boston, 1918; R. A. Hatcher, New York City, 1918; A. W. Hewlett, Ann Arbor, Mich., 1918; John Howland, Baltimore, 1919; Henry Kramer, Philadelphia, 1919; C. L. Alsberg, Washington, D. C., 1919; John F. Anderson, Washington, D. C., 1920; F. G. Novy, Ann Arbor, Mich., 1920; George H. Simmons, Chairman, Chicago, 1920; W. A. Puckner, Secretary, 535 N. Dearborn St., Chicago.

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OFFICERS OF THE ARKANSAS MEDICAL SOCIETY, 1915-1916.

Next Annual Session, Texarkana, May, 1916.

PRESIDENT—J. C. Wallis, Arkadelphia.
 FIRST VICE PRESIDENT—C. J. March, Fordyce.
 SECOND VICE PRESIDENT—F. T. Murphy, Brinkley.
 THIRD VICE PRESIDENT—O. M. Bourland, Van Buren.
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COUNCILOR DISTRICTS AND COUNCILORS, 1915-1916.

FIRST COUNCILOR DISTRICT—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph counties. Councilor, F. L. Nelson, Corning. Term of office expires 1917.

SECOND COUNCILOR DISTRICT—Clebune, Fulton, Independence, Izard, Jackson, Sharp and White counties. Councilor, L. T. Evans, Barren Fork. Term of office expires 1916.

THIRD COUNCILOR DISTRICT—Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis, and Woodruff counties. Councilor, H. H. Rightor, Helena. Term of office expires 1917.

FOURTH COUNCILOR DISTRICT—Ashley, Bradley, Chicot, Cleveland, Desha, Drew, Jefferson and Lincoln counties. Councilor, E. C. McMullen, Pine Bluff. Term of office expires 1916.

FIFTH COUNCILOR DISTRICT—Calhoun, Columbia, Dallas, Lafayette, Ouachita and Union counties. Councilor, H. H. Henry, Eagle Mills. Term of office expires 1917.

SIXTH COUNCILOR DISTRICT—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier counties. Councilor, C. A. Archer, DeQueen. Term of office expires 1916.

SEVENTH COUNCILOR DISTRICT—Clark, Garland, Hot Spring, Montgomery, Saline, Scott and Grant counties. Councilor, J. B. Crawford, Benton. Term of office expires 1917.

EIGHTH COUNCILOR DISTRICT—Conway, Johnson, Faulkner, Perry, Pulaski, Yell and Pope counties. Councilor, W. A. Snodgrass, Chairman, Little Rock. Term of office expires 1916.

NINTH COUNCILOR DISTRICT—Baxter, Boone, Carroll, Marion, Newton, Searcy, Stone and Van Buren counties. Councilor, Leonidas Kirby, Harrison. Term of office expires 1917.

TENTH COUNCILOR DISTRICT—Benton, Crawford, Franklin, Logan, Sebastian, Madison and Washington counties. Councilor, J. T. Clegg, Siloam Springs. Term of office expires 1916.

DELEGATES TO AMERICAN MEDICAL ASSOCIATION—Robert Caldwell, Little Rock; R. C. Dorr, Batesville.

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Original Articles.

ACUTE INTESTINAL OBSTRUCTION.*

By W. F. Smith, M.D., F. A. C. S.,
Little Rock.

The following cases of acute intestinal obstruction may prove of interest:

The first, a child ten months old, was a case of intussusception which occurred rather high in the small intestine. The case was not seen until after the first forty-eight hours. The abdomen was greatly distended. There had been no bowel movement. There was a reverse peristalsis and the vomiting was persistent.

The abdomen was opened and the lesion was easily found. About two inches of the intestine was involved, held in place by adhesions which were readily broken up. The intestines were markedly distended. The patient died in a few hours.

The second case was an adult male. History of case showed him to be in good health. Was suddenly taken with intense pain in the abdomen, accompanied with nausea and vomiting, followed by symptoms of shock. This patient was seen eighteen hours after the onset. He was vomiting bile. The abdomen was tender and the muscles rigid.

Upon opening the abdomen (which was done at once), a volvulus of a loop of the ilium was found. The bowel above the strangulation was not distended to an alarming extent. The condition was readily corrected and the abdomen closed. The patient died a few hours later.

Third, a girl of ten years of age. The history of the case showed symptoms of obstruction on Wednesday. She was seen Saturday, when characteristic symptoms of a complete

obstruction were presented. There was fecal vomiting, passage of stools, and gas entirely absent. The abdomen was tender and distended. Upon opening the abdomen the fecal impaction, which entirely occluded the lumen of the bowel, was found in the ilium about two feet from the secum. The bowel above the obstruction was greatly distended. The impaction could not be broken up and an opening was made in the intestinal wall, through which it was delivered. There escaped a great quantity of intestinal contents. This patient made an uneventful recovery. Nothing was given by stomach for four days.

Irrigation of the peritoneal cavity with any kind of solutions is not indicated in this case. Any exudate found should be sponged out. Too much force should not be used in replacing the tympanitic intestine, as troublesome tears of the outer coat may complicate the condition. If necessary, puncture the intestine to permit the escape of gas and fluid contents.

An early diagnosis and prompt relief of the condition producing the obstruction affords the only hope of successful treatment. The stoppage of the fecal stream, abdominal pain, vomiting, and a tympanitic abdomen, forms a group of symptoms which may not indicate any special pathological condition, but do point to either dynamic or mechanical intestinal obstructions. Dynamic ileus is a failure of the contractility of the intestinal wall of which the most important cause is peritonitis.

Extensive operations on the mesentery, the reposition of large strangulated hernias, or an embolism of the mesenteric arteries, may produce this form of ileus. Large collections of fecal matter in the colon may also bring about this condition, as will also the distension of the bowel with gas or the action of bacteria. The paralysis may be due to inflammation of the serous coat extending to the deeper layers of the intestinal wall, there-

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

by producing an edema which is responsible for the paralysis, or the latter may be produced by reflex action brought about by the lessening of the at first abnormally increased peristalsis, less gas being absorbed from the intestine and its consequent overdistension. This cause is still a matter for investigation.

The mechanical obstruction presents two forms, as follows: Obstruction and strangulation. By the former term is designated that form of obstruction that is merely a simple closure of the lumen of the bowel to the passage of the fecal current with little or no injury to the intestinal wall. Strangulation presupposes obturation followed by a compression of the wall on the intestine severe enough to seriously interfere with the blood and nerve supply of the part involved.

It may be noted that in peritonitis the absorbing power of the stomach is diminished, so it is better to give liquids by rectum. Also, the absorption of the putrefactive albuminous matter in the small intestine produces indican in the urine within two days when the small intestine is involved, but not for several days, if at all, if the large intestine is the seat of obstruction. As indican also occurs in other conditions, it is not a reliable symptom.

TRACHOMA.*

By C. N. Pate, M. D.,
Little Rock.

This distinct purport of this paper is not to bring to the Arkansas Medical Society anything new on diagnosis and treatment of trachoma, but if possible to impress upon our minds the grave need of classification. It is a dangerous and contagious disease, which causes disastrous results to the eyesight, and therefore should be considered and dealt with seriously. We have plenty of evidence to prove that trachoma is a destructive disease to the sight and the result varying from defective vision to total blindness is often seen. This goes to show that it must be considered not disastrous to life, but surely to the sense of sight by reason of its destruction of the tissue of the eye.

I wish to speak briefly now on etiology, diagnosis and treatment. The etiology is unquestionably in doubt, and we are unfortunately compelled to rely upon clinical inves-

tigations for diagnosis. We have no doubt that trachoma is caused by contagious secretions transferred from another eye either by the finger, handkerchief, towel, bed linen, etc. It is found most extensively in the poorer classes who are crowded together, and who are careless or ignorant in regard to cleanliness. Recently very small diplococci have been isolated from the discharge and the follicles and called trachoma bodies; but there is a doubt where they belong morphologically since there is a question whether they are protozoa or bacteria. The disease is in no way related to gonococcus, spirocheta or tubercular bacillus; nor do men who have investigated certain localities believe it is carried by a fly, because there are surprisingly few flies in some localities where it is most prevalent.

DIAGNOSIS.

The diagnosis of a well-marked case presents no special difficulty to one who is familiar with the disease, but smoldering cases, those of long standing and quiescent at the time of examination or too acutely inflamed to differentiate, are the hard cases to decide. Apparently, trachoma begins as an acute conjunctivitis, and while this inflammatory condition may differ somewhat from acute conjunctivitis, it requires observation and treatment sometimes for several days or weeks before a positive diagnosis can be made. It is found that ordinarily catarrhal conjunctivitis will subside in a comparatively short time. The trachoma cases will soon show the hypertrophy and present the raspberry-like appearance so characteristic of acute trachoma.

PROGNOSIS.

When seen early and treated persistently, prognosis of trachoma is favorable. Ulceration and pannus often give better results than would be expected; however, vision is often reduced. Unfortunately, persons suffering with trachoma oftentimes quit treatment too soon, and in such cases they are sure to suffer recurrence. A trachomatous eye is always liable to attacks of acute inflammation in response to a fresh irritation of trachoma follicles or to external irritation.

TREATMENT.

The treatment of trachoma is prophylactic, medical and surgical. Cleanliness is always in order in trachoma, plenty of hot water, antiseptic soaps with numerous antiseptic washes with the use of individual towels.

*Read before the Thirty-ninth Annual Session of the Arkansas Medical Society, Little Rock, May 3-6, 1915.

MEDICAL TREATMENT.

In acute inflammatory attacks, cleanliness, hygienic measures and atropin when the cornea is involved, may be used once daily for a limited period. Then once daily the conjunctiva of the lids should be painted with a one-half to one per cent solution of nitrite of silver, twenty-five per cent solution of argyrol, two per cent yellow oxide mercury ointment until the secretions subside. Caustics are to be eschewed in trachoma, as in every other form of conjunctivitis. What is needed is a stimulation of the conjunctiva and not a destruction of the membrane. Although many practitioners use copper sulphate and other caustics, ichthyol in ten to twenty-five per cent is favored by some oculists. Under medical treatment the improvement of trachoma even in the primary stage is very often a slow process. Thus, we have to resort to various surgical measures. Among those worthy of mention are scarification, expression and excision of individual granulations, the application of galvanocautery and the x-ray are advocated by some. These measures, as a rule, are to be employed only in cases in which acute symptoms are absent. The objections to most surgical procedures is the scar received from the operation. The least objectionable of the surgical procedures is the expression. This may be done in various ways, but the use of the Knapp roller forceps is preferred.

If I may be permitted at this part of my paper, I desire to briefly call your attention to a few historical facts concerning trachoma. The dissemination of trachoma has often been charged to Napoleon's soldiers when he returned to Europe from Egypt, where many of his army suffered with distressing eye disease. Without a question, it must be of far more ancient origin than this date. From investigation it is supposed to have originated in the Orient and from there gradually spread westward.

Governmental investigations in later years have shown that our American Indians are heavily infected, and that the inhabitants of portions of the Allegheny, Cumberland and Ozark Mountains are sufferers of this disease to an alarming extent. The disease prevails in Russia, Turkey, South Italy, Austria-Hungary, Greece, and the Palestine country surrounding Jerusalem. I have a medical friend who traveled through the Holy Land, and he tells me it is distressing to see the thousands suffering from this awful malady.

It is estimated that more than eighty-five per cent. of the population of Egypt are infected with trachoma. The British government maintains a system of hospitals for the relief of these unfortunate people. Statistics show that this disease is found most extensively in the following races: Syrians, Armenians, Italians, Hebrews, Polish, Greek and Slovak. Just here I wish to call attention to a few points about the immigrants from those countries pouring into ours at the rate of almost a million per year until the recent European conflict. During the six years from 1907 to 1913 there were six thousand, six hundred and fifty-seven cases of trachoma detained among the immigrants and certified at Ellis Island, an average of 1,100 cases per year. The largest percentage of these cases is coming from Russia and South Italy. Prior to 1897, trachoma was not classified as a dangerous communicable disease, and unquestionably many thousands of foreigners were permitted to land here suffering with this disease, thus increasing the source of infection. Therefore, be it said to the credit of the leading ophthalmologists of this country, our federal government was induced to declare this a dangerous and contagious disease. Thousands of immigrants since then have been prevented from embarking to our country, and an inspection service has been maintained by the steamship companies to prevent persons suffering with trachoma from going on board. Also, the examination by our government carefully made of all eyes of immigrants on arrival in our ports not only prevents trachoma-infected people from landing here, but detains those suffering with this disease from entering this country. It is an established fact that trachoma does not originate in an unaffected territory, and its presence in a community or locality can only be attributed to previous importation. The measures taken by our government have given the citizens of this country the assurance that the number of those infected with this disease will not receive many additions from other lands; however, I do not wish to leave the impression that there exists no endemic foe in America, for recent investigations show quite a few important infected localities. Senate Document 1038, Report of Finding by Order of Congress, January, 1913, furnished me by one of our congressmen, gives these startling figures: Out of 39,231 of a total number of Indians examined, 8,940 persons, or 22.7 per cent, were infected, 10.50 per cent showing

marked damage to vision with trachoma. If this ratio were found in the entire Indian population, we should have something near 72,500 cases of trachoma in this population alone. These cases of infection were found in both sexes and all ages, including students in day schools, mission schools and Indian boarding schools. The rate found in the State of Oklahoma was excessively high; 2,237 cases out of 3,252, or 68 per cent, were found infected. Wyoming second, 51 per cent; Nebraska 41 per cent, South Dakota 23 per cent, and New Mexico 22.38 per cent.

Just a few statistics of the Indian boarding schools: Of the 16,470 pupils in these schools, 4,916 cases of trachoma exist, or nearly 30 per cent infected. The highest percentage shown in any of these schools was in the Rainy Mountain Boarding School in Oklahoma, where 105 cases out of 114 pupils examined were trachomatous, or 92 per cent.

Now, permit me to call attention to a few facts of the prevalence of trachoma in the mountainous sections of our Southern states. The United States Public Health Service has shown that something near 33,000 cases in its most destructive form exists in the mountains of Kentucky. The United States government report in Public Health Bulletin in November, 1912, shows that twelve and one-half per cent of the population in seven counties in Kentucky have trachoma. In some of the counties in Kentucky the percentage runs as high as twenty-six per cent, and in others falls as low as three per cent. The majority of those examined were school children, showing the appalling condition which confronts the State Board of Health of Kentucky in dealing with this persistent disease.

Now, with reference to limited statistics in our own state, the northwestern and northern portion of the state constitute the main localities of infection. We have very little records of infection in the southern and eastern portions of the state. A quotation from the 1910 and 1912 report of Mr. S. D. Lucas, at that time superintendent of the State Blind School, Little Rock: "The conditions in Arkansas show a larger proportion of the pupils in the State Blind School suffering from trachoma than from any other cause, and a larger percentage than is shown to exist in many other states." "Dr. J. G. Watkins, report of December, 1912, states of having examined forty-six new pupils, of which number nineteen were suffering from trachoma." "Report of 1912-13, we had thirty-three under treatment

for trachoma in its various stages, and during the session of 1913-14 there were fifty under treatment for trachoma. The cause of blindness in this institution differs widely from similar institutions elsewhere, in that here trachoma is the principal cause of blindness, whereas in the former ophthalmia, neonatorum plays the principal part."

Gentlemen of the Arkansas Medical Society, I wish here to lay special stress on the fact that many of the states have employed the service of an experienced oculist to visit all the schools, examine all the school children, report and isolate cases of trachoma. I ask the question, why are not the children in our grand and noble state just as worthy of protection and advantages as those in other states?

I wish to picture before your mind's eye a sentence written in large scarlet letters and placed as a crown upon the beautiful, golden-haired child, for all of the people of the State of Arkansas to read, and may the letters burn as hot brands into our minds and hearts: "*Blind from trachoma; early treatment would have saved her sight.*"

Noble knights of the profession on the firing line where the sufferers of this disease have not the opportunity of consulting an oculist, he who recognizes this disease in its earliest stages and warns the patient and family of the danger of communicating this malady to loved ones and friends, has done a great deal good for humanity, if he is never able to accomplish a cure for the patient.

IN CONCLUSION.

First. The origin and duration of infection among our American Indians and mountainous people are unknown, but its wide prevalence is due to the mode of living and the lack of hygienic knowledge in personal life.

Second. Trachoma is a public health problem of the greatest importance, and we, the medical profession, are due to give it our most serious consideration with all necessary action for its control. This must be accomplished through a threefold agency, the medical profession, the school teachers and the graduate nurse officer.

Third. The solution of the problem of eradication of trachoma in the infected localities and protecting the uninfected is neither easy nor speedy. It is complicated, tedious and a tremendous task. I cannot express this

better than by quoting one sentence of Dr. Von Sholly, "The solution of the problem is the dissipation of ignorance by teaching the laws and rules of hygiene."

DISCUSSION.

Dr. Dred R. Dorente (Fort Smith): We know that there is a great deal of this dreadful disease in our midst. There is one point I wish to bring out, and that is in regard to the differential diagnosis between the true trachoma and follicular conjunctivitis. One is harmful and the other rarely is, but a differential diagnosis in the early stage is very difficult sometimes, so that every case of either should receive every consideration. In regard to prophylactic treatment, I do not think the essayist meant that the treatment was instituted for the special benefit of the victim of the disease, but rather for the protection of those who have not acquired the disease.

There may be some difficulty in diagnosing the condition and treatment in the first stage, but if it is carefully watched for a time you can follow it out very satisfactorily and confirm your diagnosis. You can then institute the treatment necessary whether the disease assumes classical characteristics or not.

I have always advocated and I have always followed out the idea that there is but one sure cure for trachoma in the granular stage, and that is through operative procedure; use deep irrigation of the lachrymal canals, then institute aseptic methods later on. Keep the patient under observation as long as possible, and be just as thorough in your prophylaxis in regard to the others.

Dr. H. Moulton (Fort Smith): The practitioner often meets with many pathetic and tragic incidents in the treatment of this condition; especially is this true of trachoma patients out in the rural districts, because so many of them are very poor, and if they do manage to go where there is a specialist, they cannot stay long enough to be cured. They have not the means to remain where they can receive attention. Their situation is indeed deplorable. It is a matter of humanity. I think every general practitioner in the State of Arkansas ought to be an expert on trachoma, because in every community there are plenty of cases, and unless the general practitioner in that locality accepts the duty and treats them, they will go untreated. If the general practitioner has been capable of acquiring skill sufficient to treat pneumonia and rheumatism, he should endeavor to make himself competent to treat trachoma; he should do it for the benefit of the community in which he lives. There are thousands of men, women and children incapacitated and handicapped in life's work by this disease, who might be restored to happiness and usefulness. It means a distinct loss to society. Investigation has shown that the economic loss to the community is almost as great as that caused by hookworm. If we cannot get anybody to take care of these cases we must do it ourselves and not try to shirk a responsibility incumbent upon us.

Dr. J. H. Buckley (Fort Smith): There is just one point that I wish to mention in reference to the operative treatment of trachoma—the sandpaper method. I believe this originated with Dr. Black of Denver. In my hands it has given good results. By sandpapering these trachomatous bodies I have had less reaction than by any other method I ever tried.

SYMPATHETIC OPHTHALMIA.*

By E. M. Hudson, M.D.,
Little Rock.

Various theories have been given by different ophthalmologists concerning the pathogenesis of sympathetic ophthalmia. A discussion of these theories would involve many questions of interest, but would carry us far beyond our purpose in this paper. Since McKenzie first described it in 1835, few details have been added to its clinical features. Its primary cause and the manner in which the diseased process is transmitted from one eye to its fellow is wrapped in little less mystery to us than it was to him.

But while our knowledge of its pathology is so very limited, the clinical experience of ophthalmologists have established some facts of profound importance. Many of these features appeal no less to the general practitioner than to the ophthalmologist, since upon his knowledge and advice the well being of so many eyes are dependent. I know of no condition that visits greater disaster for so little neglect. The gravity of the disease and the imperative necessity of limiting its progress, which would otherwise result in the horror of total blindness, is certainly of sufficient importance as to demand a careful study of its nature.

The definite features that characterize sympathetic ophthalmia relate especially to the form of injury, the time of appearance after the injury, and the participation in the pathological process of the uninjured eye. The injury must involve a perforation of the coats of the eye from without, the most dangerous situation being the ciliary body, and less frequently, injuries to the iris and to the choroid. Very rarely intraocular tumors involving the uveal region result in sympathetic inflammation, an exception to the rule relative to external wounds, and an exception which has caused much controversy.

A foreign body remaining in the eye is a most potent cause of sympathetic mischief, yet the removal of one from an eye that has been quiescent for years may result in sympathetic involvement. The most dangerous period is from three to six weeks after injury. Its clinical features are characteristic, consisting, first, in a persistent iridic and ciliary injection following an injury, with possibly

*Read before the Third District Medical Society.

a reddening of the whole globe. Vision does not return, but on the other hand it usually diminishes. The injured eye is very tender to the touch. The tension is low.

The fellow-eye may now begin to participate in the same process, photophobia and lachrymation; the usual features of an irritation may be slight or entirely lacking. There becomes first a faint injection surrounding the cornea, and soon a persistent iridocyclitis is evident. The cornea is at first clear, but soon there is a deposit upon the posterior surface on Descemet's membrane. The iris becomes adhered to the lens, often binding down the entire posterior surface. The iris is thickened and may become spongy or completely disorganized. The tension at this stage may be increased, but usually sinks again, and as the violence of the disease subsides it is again reduced and remains so. One of the most characteristic features of the disease is the universality of the adhesions of the posterior surface of the iris to the lens.

The probability of its occurrence is, to be sure, less after a period of six weeks from the time of the inciting injury, but we must not suppose that there is no longer any danger. It may develop many years after the receipt of a wound. The danger signals are persistence of injection after attempted healing of the wound, failure of the normal return of vision, ciliary tenderness, and low tension of the ball. These cardinal signals which persist for from four to six weeks after a perforating injury involving the ciliary region or iris should be a certain warning of danger.

We do not always have these warnings, however, and are called upon to say whether or not sympathetic inflammation will probably develop. We are helpless, and cannot say in any given case. It is something to be dreaded, but cannot be foretold. No premonitory symptoms herald its approach with certainty.

McReynolds in an analysis of 160 cases enumerates the injuries in which it occurred as follows: Eleven followed the retention of a foreign body within the globe, 113 followed accidental injuries not associated with the retention of foreign bodies, thirty-nine followed intraocular operation and especially cataract operations.

With these facts before us, what should guide us in our advice to one where the element of sympathetic ophthalmia is to be considered. We are assured that the enucleation of an injured eye in which the mischief has

begun, will with certainty prevent a like involvement of the other eye if removed before the beginning of the pathological process in the sound eye. If, however, the disease is at all manifest in the uninjured eye, we should assuredly permit the other eye to remain if there is any remaining vision in it, since the destructive process may, and often does, leave it the better one for useful vision, and it can in no event arrest the progress of the disease.

We feel justified, therefore, in assuming that all injured eyes whose vision is hopelessly lost should be enucleated. That indication of good recovery should be manifest within four weeks after injury. That recurring attacks of inflammation is a positive indication for enucleation. That an eye having previously been injured, regardless as to when, should, if presenting the characteristic symptoms of tenderness, continued injection, lowered tension, and loss of vision, be promptly removed.

I have found that patients upon a fair presentation of the situation in recent injuries where we were suspicious of mischief, readily assent to our advice and willingly submit to enucleation, where we have deemed it best, but in those who have gone for years with an injured eye and who have experienced only slight trouble, are, upon the appearance of aggravated symptoms, hard to convince that his eye would not return to its former quiescent state.

I have no regrets for any enucleation I have done for anticipated trouble of this character, but I can recall to mind at least two cases that have resulted disastrously, which perhaps would have been averted had I been more urgent in my advice for enucleation. These came under my care at a time when I was doing a general practice, and at a time also when my ignorance of its nature prevented me from ascribing proper gravity to its seriousness. This experience has served to impress me with a desire that every physician avail himself of at least a better knowledge of the disease than I at that time had.

Seventy-six out of eighty-seven cases of typhoid fever which occurred in a recent outbreak have been traced by the United States Public Health Service to infected milk. Had the first cases been reported to a trained health officer, the outbreak could have been stamped out promptly. When will we learn that disease prevention is sure and cheap?

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DR. WILLIAM R. BATHURST, Editor.

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Anonymous communications will not appear in the col-
umns of this Journal, no matter how meritorious they
may be.

Editorials.

THE TEXARKANA MEETING.

With the election of capable officers, good attendance, an excellent program, scientific and otherwise, the fortieth annual Convention of the Arkansas Medical Society, held at Texarkana May 2, 3, 4, was an unqualified success and the forty-first year of the existence of the Society begins under the most favorable auspices. For the prompt dispatch of business the Convention is indebted to Secretary C. P. Meriwether and his re-election is a well-earned recognition of his efficiency and rare fitness for that exacting office. The officers for the ensuing year are:

President—M. L. Norwood, Lockesburg.

Vice Presidents—L. L. Purifoy, El Dorado;
J. M. Lemons, Pine Bluff, and W. R. Brook-
sher, Fort Smith.

Secretary—C. P. Meriwether, Little Rock.

Treasurer-Editor of Journal—William R.
Bathurst, Little Rock.

Councilors—Second District, J. C. Cleve-
land, Bald Knob; Fourth District, J. H. Wea-
ver, Hope; Eighth District, Earl H. Hunt,
Clarksville; Tenth District, J. T. Clegg, Si-
loam Springs (re-elected).

Delegate to the American Medical Asso-
ciation—C. P. Meriwether, Little Rock; al-
ternate, Robert Caldwell, Little Rock.

HOUSE OF DELEGATES.

The House of Delegates assembled at 9:00 a. m. of the first day, May 2. J. C. Wallis, presiding. Rev. P. C. Fletcher, of the First M. E. Church (formerly of Winfield Memorial Church, Little Rock), offered the invocation and the address of welcome was then delivered by T. F. Kittrell on behalf of Texarkana, L. P. Gibson, of Little Rock, responding on behalf of the visiting delegates. One of the first orders of business being the appointing of committees, the following were selected:

Reference Committee—T. F. Kittrell, Texarkana; L. P. Gibson, Little Rock, and St. Cloud Cooper, Fort Smith.

Nominating Committee—J. F. Sanders, Blytheville; J. C. Cleveland, Bald Knob; S. A. Southall, Lonoke; J. M. Lemons, Pine Bluff; F. C. Mahoney, Huttig; Don Smith, Hope; John S. Wood, Hot Springs; Robert Caldwell, Little Rock; L. Kirby, Harrison, and J. F. Southard, Fort Smith.

FIRST GENERAL SESSION.

The first general session was held on the afternoon of May 2, the President, J. C. Wallis, in the chair. Rev. F. E. Maddox offered the invocation.

In the absence of Mayor J. D. Sanderson, the address of welcome, on behalf of the city, was delivered by Rev. P. C. Fletcher and L. J. Kosminsky welcomed the delegates on behalf of the Miller County Medical Society. The response on behalf of the visiting delegates was made by Don Smith, of Hope.

J. C. Wallis then delivered the President's annual address, a very excellent one, which will be published in full in the next issue of the Journal. The rest of the afternoon was devoted to the scientific session.

SECOND DAY.

The proceedings of the second day were largely of routine nature, consisting of a short business session of the House of Delegates and reports of committees. The scientific session which followed was attended by several visitors from other States, among them, G. H. Moody, San Antonio, President of the Texas Medical Society; Fred H. Clark, El Reno, Okla., Secretary of the Medical Association of the Southwest; Will Cantrell, Greenville, Texas, and A. Warren Stearns, Boston, Mass.

PUBLIC HEALTH MEETING.

In the work of educating the general public in matters of sanitation and disease prevention, the annual open meetings have become a most important feature of the Convention. The open meeting at Texarkana was held on

the evening of May 3 at the Congregational Tabernacle and an educational program was carried out on topics of public interest which are receiving much attention. A. Warren Stearns, of Boston, Mass., representing the National Committee of Hygiene, spoke on "Social Problems of the Feeble-Minded;" J. T. Clegg, Siloam Springs, talked on "The Healthy Citizen."

The pleasure of those attending the meeting was greatly enhanced by the well rendered organ recital given by Mrs. Case, of Texarkana. The pipe organ is one of the largest and best in the South, and Mrs. Case is a perfect mistress of the instrument, her technic and expression alike being notably good.

THE FINAL SESSION.

On the morning of the last day, May 4, the House of Delegates met and the session was devoted to unfinished business, reports of committees, reading and acting on resolutions and the election of officers. The afternoon was given over to the scientific section and several interesting papers were read and debated.

A complete report in the Journal is impossible and unnecessary, as the President's annual address and other papers will be published in full in the succeeding issues. Among the notable features of the three days' meeting, however, mention should be made of the excellent addresses made by G. H. Moody, of San Antonio; H. Moulton, Fort Smith; Thomas Douglass, of Ozark; Morgan Smith, Little Rock; E. D. Holland, Hot Springs, and A. G. Lee, Texarkana. Also of the banquets of the Secretaries' Association and the Arkansas Alumni Association of the Universities of Arkansas, Tulane, and Washington.

The Miller County Medical Society deserve the cordial thanks of the visiting delegates for the efforts they made to entertain them during their stay and all left with the most kindly feelings toward their hosts. The next meeting will be held in Little Rock.

POVERTY AND TUBERCULOSIS.

The statistics recently published by the United States Public Health Service apparently would indicate a close relation existing between poverty and tuberculosis. According to the report one-sixth of the total number of cases develop in cheap lodging houses and one-fifth of all cases are traceable to occupational hazards and bad working conditions. It goes without saying that illy-ventilated lodging houses and work rooms, insufficient food and other conditions obtaining among the poor, invite not only tuberculosis but other diseases also, and lessen resistance to them. When it is considered that the vast ma-

jority of the whole population consists of working people (as the term is generally understood) and that in all cities conditions in tenements, lodging houses, and workshops are far from ideal, it is not surprising that one-fifth or one-sixth of all cases should develop in the lodgings and work rooms of that class.

In spite of sleeping porches, outdoor treatment, lymphs, diets, and all the efforts put forth by modern medical science to check the inroads of tuberculosis, the mortuary statistics afford little encouragement to the hope of the ultimate elimination of the white plague. By all means lighten the burdens of the poor, aid in every effort to obtain better conditions for the workers, more and better food, more fresh air and sunshine, better sanitation; but let us not imagine from statistics that the cause (or even a cause) has been found for a plague which seems to play no favorites but takes its victims from all walks of life, from the palatial home of the multimillionaire to the hovel of the pauper, and, taking the statistics referred to, apparently with little discrimination in favor of those more comfortably circumstanced in life than the tenement dweller and work-room slave.

SURVIVAL OF THE FITTEST.

A year or more ago the Journal in an editorial indulged some speculation as to whether the efforts of modern medical science to save the weaklings of the race were not possibly to the best final interests of a strong race because it was a setting aside of the great natural law of the survival of the fittest.

And now come the official figures of the Census which gives point to that speculative utterance for it appears indisputably that in spite of progress in sanitation, hygiene, medical knowledge, and a generally lower death rate, that there is a marked increase in the mortality of men over forty years of age.

In the decade 1900-1910 the infant mortality decreased 26.55 per cent, owing to the propaganda for the instruction of mothers, the fresh air campaigns in the crowded cities, free ice and milk charities and other means taken to save the weaklings. The decrease in the mortality of boys under nine years was 27.66 per cent. The decrease in lesser degree obtains up to the age of forty. But at forty the decrease disappears altogether and the proportion of deaths is greater than ever. It is not true that this increased mortality comes from an increasing per capita consumption of alcoholic liquors, because the general trend is to greater sobriety. There is just one explanation, namely, that the weaklings are saved only to succumb to the strain of life when a man should be at his very best. But

the fact to meet serious consideration is this: The weaklings thus saved become parents of the next generation. What of their progeny? Will they inherit the weaknesses of their sires? An increased death rate at the age of forty means more children left fatherless to shift for themselves, more widows perhaps unprovided for to raise children in poverty. It may mean a deteriorated race. The science of life-saving, that of the physician, is the noblest of all. It is painful to even become skeptical of the utility of final results, but we cannot blind ourselves to ascertained facts which will not down.

Editorial Clippings.

REPORT OF MEDICAL SOCIETY MEETINGS.

We desire, and ought to have, a report of every medical society meeting, county and local, for our New Jersey Journal. We ask it not for our own sake as the editor of the Journal but for our readers' benefit. It is comparatively easy to fill our columns with carefully selected abstracts and clippings from the many journals we receive in exchange, but that is not our conception of a State Society Journal. It ought to set forth, as far as possible, the work of the medical men of the State, in private practice, hospital practice, etc., giving reports of unusual or interesting cases and other valuable contributions to medical literature.

We very deeply appreciate the excellent work some of our Reporters and Secretaries are doing in reporting to our Journal carefully prepared reports of meetings, of clinical cases, personal notes, reports of deaths and other items of interest concerning hospitals, etc. We kindly and urgently ask our reporters and secretaries to help us in this great work, we repeat not for the editor's benefit, but for their own and the Society's benefit, for the credit of the medical profession in New Jersey and the good of humanity through the increased knowledge and efficiency of medical men.—*Journal of the Medical Society of New Jersey.*

PRACTICAL POINTERS FOR MAY.

A hypodermic dose of apomorphine usually diagnoses and cures the convulsions of children not due to fever.

To soften impacted ear wax, a solution of sodium bicarbonate in warm water (about 100 to 110° F.) acts very nicely in most cases. Use the ear syringe.

Some forms of dysmenorrhea, according to Novak, are relieved by sodium citrate, which

it is claimed reduces the viscosity of the blood and alleviates the pain of expulsion.

Precordial pains always demand close investigation. Relieve these pains with glonoin or atropine, or, better still, by both, the first being given to produce quick action, the latter to prolong it.

Atropine is the indicated remedy in spasmodic dysmenorrhea. Give 1-100 grain two or three times a day, beginning two or three days before the period and continuing until the flow is well established.

Gray declares that measles is most contagious at the time of the appearance of the rash, but may be transmitted as early as five days before this time. Its transmissibility does not extend beyond seven days following the skin eruption.

After experimenting extensively on cats, Martha Wollstein reaches the conclusion that mumps is probably due to a filterable virus. Whether this virus contains a microorganism or not has not been ascertained. See *Journal of Experimental Medicine* for March.

Obstructive dysmenorrhea—in which pain ceases as soon as the flow is well established—is relieved, according to F. B. Block (*American Journal of Obstetrics*) by the insertion of a stem pessary, or by any other means indicated for the removal of the obstruction.

Ellingwood says that in the amenorrhea of young girls, and in that form induced by exposure to cold, he obtains excellent results from the use of polygonum (water-pepper). Ten to twenty drops of the specific tincture are administered every two to three hours in hot water.

Baeterin treatment is being used with good success in the treatment of sciatica. Search for some point of focal infection. Occasionally it will be found in an infected bladder or an inflamed prostate. Zapffe cured a case with a bacterin made from staphylococci and a diphtheroid bacillus found in the urine.

In treating severe and extensive burns, try immersion of your patient in a bath containing $\frac{1}{8}$ to $\frac{1}{4}$ pound of sodium bicarbonate. The temperature of the bath should be raised for subnormal temperature and shock, or lowered for pyrexia. This treatment, declares Herrick, in *The New York Medical Journal*, is unequaled.

The "rheumatics" will drop in on you this month. Are you ready for them? Much can be done for their relief. Examine the teeth, the tonsils, the prostate, and the alimentary canal; give bacterins that "fit"—the streptococcus is usually the trouble-maker; and do

not forget the alkaline-eliminative treatment for the associated acidemia.

Do you know that there is a test by which it is possible to determine a persons' immunity to diphtheria, and that about 80 per cent are naturally immune? This is the so-called Schick reaction, obtained by injecting a small amount of carefully diluted diphtheria toxin under the skin. Eventually this test will be applied to every person exposed to diphtheria. Why not now?

Have you a troublesome case of urticaria? Remember that it is now believed that this condition is due to proteid decomposition and the formation of the toxic histidin by-product- betainimidazoleethylamin. Put your patient on a vegetable diet for two weeks, purge daily with a saline laxative, and if the disease shows a tendency to persist, try small doses of pilocarpine.

A variety of bacteria may cause summer diarrhea in children: for instance, the dysentery (Shiga-Flexner) bacillus, the gas bacillus, streptococcus, bacillus proteus, and the bacillus capsulatus. Whatever the cause, lactic-acid treatment seems to be effective. This is especially true if the gas bacillus is present, as is practically always the case in bottled babies. Order tablets containing the bacillus bulgaricus.

Richardson (*Boston Medical and Surgical Journal*, December 23, 1915) believes that it is a pernicious custom to give castor oil to clean out the intestinal tract prior to surgical operation. The castor oil is not only an intestinal irritant, but it tends to produce post-operative intestinal stasis, facilitating gas accumulation. Doctor Richardson believes it more rational to give a saline cathartic or Russian oil, followed by a cleansing enema.

A diagnosis of pregnancy may now be made by an examination of the urine, according to a method devised by Kiutsi and Malone. The technic has been improved by Knerr (*Journal Missouri State Medical Association*, March, 1916). In this test the urine is examined according to the Abderhalden method to determine the presence or absence of placental enzymes. Knerr declares that he examined 200 urines by this method, with practically no failures. Others have not been so successful.—*The American Journal of Clinical Medicine*.

GREAT MEN AND TEMPERANCE.

Is it not strange that wet England produced a Shakespeare, wet Germany a Schiller, a Bismarck, wet America a Jefferson, a Washington, and a Lincoln, while prohibition Turkey never produced a single great man in all the centuries since Mohammed?

Its religion and civilization both rest upon prohibition. The beer-drinking Bulgars were more than a match for the dry Turks. There is today not a single example of superior manhood in the Turkish Empire. The prohibition Turks trail in the tail end of civilization. They are inferior in everything except bigotry, brutality, and ignorance. Prohibition has utterly failed to elevate the standard of manhood and morality in the only country in the world where it is a success.

It is a matter of history that very few really great men were total abstainers. Men of character and ability, like Gladstone, Asquith, and Salisbury; giants of intellect like Carlyle, Macauley, Tennyson, Bismarck, Milton, Shakespeare, Luther, Bunyan, Wellington, Pitt, Socrates, Napoleon, Darwin, Dickens, and a host of others, were temperate but not total abstainers.

Webster, Hawthorne, and Clay were never total abstainers.

Washington and Jefferson owned distilleries, and Lincoln ran a tavern in Salem at one time during his career.—*Pacific Medical Journal*.

THE MEDICAL MAN'S EDUCATION.

(From Charles M. Eliot: "*Changes Needed in American Secondary Education*." Publications of the General Education Board. Occasional Papers, No. 2, New York, 1916.)

There is one profession, however, in which the educational processes have been adequately changed, but only within recent years, namely, the profession of medicine. The reason for the comparatively early improvement of medical education is that the medical art has always depended for such measure of success as it attained on the physician's power of accurate observation, and his faculty of reasoning cautiously and soundly on the testimony which his senses gave him. From remotest times the successful physician has been by nature a naturalist.

He saw and heard straight, and his touch gave him trustworthy information. He has still, and must always have, the naturalist's temperament, and he must possess the naturalist's trained senses. The reason that medicine and surgery have within twenty-five years made such astonishing progress is that the practitioner, possessing the senses and mental habits of the naturalist, has been supplied through the progress of biological, chemical, and physical science, with wonderful, new means of accurate diagnosis. The training the medical student now receives is largely individual training in the use of his sense; and this training is given by experts in the use of their own eyes, ears, and hands in diagno-

sis and treatment. The just reasoning follows on the trustworthy observation.

* * *

The men who, since the Nineteenth Century began, have done most for the human race through the right use of their reasons, imaginations, and wills are the men of science, the artists, and the skilled craftsmen, not the metaphysicians, the orators, the historians, or the rulers. In modern times the most beneficent of the rulers have been men who shared, in some degree, the new scientific spirit; and the same is true of the metaphysicians. As to the real poets, teachers of religion, and other men of genius, their best work has the scientific quality of precision and truthfulness; and their rhetorical or oratorical work is only their second best.

The most exact, complete, satisfying and influential description of true neighborliness in all literature is the parable of the Good Samaritan:

"Which of these three, thinkest thou, proved neighbor unto him that fell among the robbers? And he said, He that showed mercy on him. And Jesus said unto him, Go, and do thou likewise."

It is an important lesson to be drawn from the Great War that under the passionate excitements and tremendous strains of the widespread disaster the medical profession and the nurses of all countries are holding firmly to that exact definition of the neighbor, and are obeying strictly the command, "Do thou likewise." These are men and women who have received thorough training of the senses without suffering any loss of quick sympathy or of humane devotion.—*The Lancet Clinic*.

Abstracts.

PERITONEAL INFECTIONS.

J. Saliba, Elizabeth City, N. C. (Journal A. M. A., April 22, 1916), reports his experience with the use of ether in peritoneal infections. When introduced into the peritoneal cavity it acts in both its liquid and its gaseous form, and its absorption and evaporation are very rapid. He has used it as a routine in all cases of peritoneal infection that came under his care for over a year at the Elizabeth City Hospital, continuing the employment of proctolysis and Fowler's position in the after-treatment. By means of a small sterile cannula attached to a record syringe containing the dose of ether and inserted immediately before the continuous suture of the peritoneum has been tied, he instils the ether into the peritoneal cavity and then sutures the wound in

the parietes. When drainage is used, he injects ether through the drainage tube and clamps it for four hours. His youngest patient thus treated was five years old and the amount injected one ounce. In adult cases he never injects more than three ounces, and in only one case did he give a second injection on the fourth day. No untoward after-effects of the ether were observed in any of his cases. Five cases of appendicitis showing the results are reported. He concludes that ether has a bactericidal action and is a safe and beneficial antiseptic in peritoneal infections. Any possible toxic action of the ether is very slight.

RABIES.

The curability of rabies in the human being is discussed by F. S. Fielder, New York (Journal A. M. A., April 22, 1916), who refers to the reported cures by Moon and Harris and reports two cases in which he had the opportunity of trying the quinin treatment used by them, and also one patient treated with phenol. His cases are fully reported, and as far as can be judged from this small number, he says they seem to show no evidence that either quinin or phenol has any influence or specific effect on developed human rabies. One other case was not rabies, but shows how closely hysteria may simulate the disease. The most fully reported case was in a child, aged 13, and the only beneficial effects of the quinin treatment seemed to be a reduction of the conscious suffering and probably a little prolongation of the course of the disease. It also indicates that the administration of quinin intraspinally is very dangerous, although it seems well borne by intravenous administration, but not much can be expected from it in either way.

PHARMACOLOGIC SUPERSTITIONS.

H. C. Wood, Jr., Philadelphia (Journal A. M. A., April 8, 1916), says the length of time during which a drug has been employed in medicine furnishes no measure of its usefulness. Remedies whose reputation was sustained unabated for 2,000 years have been unable to bear the light of modern knowledge and have been thrown away and their names forgotten within fifty years. He mentions the various cures which have been recommended and abandoned, some of them after many years of use, as demonstrating this fact. The conclusions of chemists or physiologists as to

the value of a remedy cannot be accepted until the tests have been sufficient to meet all these possible requirements. The effects of certain drugs in relieving symptoms are often most evident, but the question whether they are beneficial in disease cannot be answered so dogmatically. It seems to him fair to conclude that we are only justified in giving credence to claims of therapeutic usefulness when the known action of the drug permits a plausible explanation of its asserted benefits in harmony with the accepted theories of the disease and one supported by sufficient bedside corroboration. When the candidate drug can present no signs of its logic, and only vague and scanty clinical credentials, we are certainly justified in regarding its claims with suspicion. He reviews some traditional remedies by the standards set down by him, and condemns them, as a result, to the limbo of all forgotten superstitions. Among these are compound syrup of hypophosphites, and he gives apparently very good reasons for his unfavorable opinions, as well as those on lithia, sarsaparilla, Basham's mixture, ferric chlorid, opium as a local remedy, and aromatic spirits of ammonia, which are the others specially mentioned.

ETHER ADMINISTRATION.

Isabella C. Herb, Chicago (Journal A. M. A., April 29, 1916), describes the methods of ether administration used by her in the Presbyterian Hospital, both as regards the ordinary open method and the intrapharyngeal method. The question of warming the ether vapor is discussed, the proper aseptic surroundings are described, and she makes a comparison between the open and closed methods, pointing out the advantages of the former. These are stated in her conclusions as follows: "The anesthetic state should closely resemble normal sleep. Simplicity in the administration of ether, as simplicity in other branches of medicine, is desirable. As much air or oxygen as is consistent with narcosis should be allowed. That there is any distinct advantage in warming ether vapor is very doubtful. The conservation of body heat during anesthesia is of great importance. With the open method of etherization, the patient's blood is well oxygenated throughout the most difficult operation, and patients leave the operating table with normal color and normal respiration. There is less injury to the lung epithelium when an abundance of air is allowed with the ether."

Personals and News Items.

The First District Medical Society met April 25 in Jonesboro.

Dr. George S. Brown, of Conway, is in New York with his son George, who is critically ill.

Dr. O. K. Judd, of Little Rock, has returned from a six weeks' postgraduate course in Chicago.

Dr. F. P. Hardy has moved from Carisle to Center Hill and has formed partnership with Dr. S. J. Albright.

The sixty-seventh annual session of the American Medical Association will be held June 12 to 16, 1916, in Detroit.

"Many doctors stay away from their medical society meetings because they are afraid they will be run over by a train of thought."

The United States Civil Service Commission announces an open competitive examination for Assistant Epidemiologist, for men only. From the register of eligibles resulting from this examination certification will be made to fill vacancies in this position in the Public Health Service, at the salaries ranging from \$2,000.00 to \$2,500.00 per annum, and vacancies as they may occur in positions requiring similar qualifications, unless it is found to be in the interests of the service to fill any vacancy by reinstatement, transfer, or promotion. Persons who meet the requirements and desire this examination should at once apply to the United States Civil Service Commission, Washington, D. C., for Form 304 and special form stating the title of the examination desired.

The United States Civil Service Commission announces an open competitive examination for medical interne, for both men and women, on June 7, 1916. From the register of eligibles from this examination certification will be made to fill vacancies in this position in the Government Hospital for the Insane, Washington, D. C., at \$900.00 per annum, with maintenance, and vacancies as they may occur in positions requiring similar qualification, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion. Applicants must show that they are graduates of a reputable medical college or that they are senior students in such an institution and expect to graduate within six months from this examination. Applicants must not have graduated previous to the year 1914 unless they have been continuously engaged in hospital or laboratory or research work along the lines of neurology or psychiatry since graduation, which fact must be specifically shown in the

application. Applicants must be unmarried. This examination is open to all citizens of the United States who meet the requirements. Persons who meet the requirements and desire this examination should at once apply to the United States Civil Service Commission, Washington, D. C., for Form 1312, stating the title of the examination for which the form is desired.

SECRETARIES AND ALUMNI MEETINGS.

The Secretaries' Association, composed of Secretaries of the various County Medical Societies in Arkansas, held their third annual meeting at the Huckins House, Texarkana, on the evening of May 2. C. P. Meriwether, of Little Rock, presided in the absence of the President.

The following officers for the ensuing year were elected: President, Fred C. Rowell, Pine Bluff; Secretary-Treasurer, Thomas Douglass, Ozark. The President appointed the following Executive Committee: William R. Bathurst, Little Rock; P. E. Thomas, Jr., Clarendon.

The minutes of the previous meeting were read and approved and short addresses were made by L. P. Gibson, L. Kirby, W. A. Snodgrass, and H. H. Rightor.

ALUMNI MEETINGS.

The meetings and banquets of the alumni of the Medical Department of the University of Arkansas, Tulane, and Washington, were held in the Huckins House on the evening of May 3. The election of officers resulted as follows:

University of Arkansas Alumni—President, George B. Fletcher, Little Rock; Vice President, Charles Priekett, Traskwood; Historian, T. M. Fly, Little Rock.

Washington University Alumni—President, C. J. March, Fordyce; Secretary-Treasurer, Thomas Douglass, Ozark.

Tulane Alumni—Earle H. Hunt was re-elected Secretary.

T. M. Fly presided over the meeting of the University of Arkansas Alumni, and R. C. Dorr was toastmaster at the joint meeting and banquet of the alumni of Washington and Tulane. Short addresses were made by Morgan Smith, W. A. Snodgrass, Will Cantrell, F. C. Mahoney, Robert Caldwell, L. Kirby, C. P. Meriwether, St. Cloud Cooper, R. C. Dorr, and L. P. Gibson.

MEDICAL ASSOCIATION OF THE SOUTHWEST.

President Dr. St. Cloud Cooper, of Fort Smith, announces that the eleventh annual meeting of the Association will be held in Fort Smith, October 2, 3, 4, 1916. Invited

guests are Dr. John Ridlon, of Chicago, and Dr. Fenton B. Turek, of New York.

Dr. Cooper says that nothing will be left undone in the way of convenient meeting places for sections and that entertainment and comforts will be provided for all who care to attend. One of the features of this meeting will be known as "Clinical Day." Something good will go on every minute. Arkansas physicians should make their plans to attend this meeting.

THIRTY-SEVENTH ANNUAL COMMENCEMENT OF THE COLLEGE OF MEDICINE AND SEVENTH ANNUAL COMMENCEMENT OF THE COLLEGE OF PHARMACY OF THE UNIVERSITY OF ARKANSAS.

The thirty-seventh annual commencement of the College of Medicine and the seventh annual commencement of the College of Pharmacy of the University of Arkansas was held Thursday evening, May 11, 1916, at the High School Auditorium, Little Rock. The graduates from the College of Medicine were: M. C. Armstrong, M. C. Berry, A. A. Calaway, W. A. Dashiell, W. W. Hornsby, P. Jones, H. E. Lonigno, A. L. Mobley, H. E. Mobley, N. Mumey, J. W. Nolan, L. V. Parmley, W. D. Rose, R. W. Steele, J. H. Stringfield, J. B. Wells. From the College of Pharmacy were: J. D. Steele, I. Jeffery, H. Hall, J. H. Goodgame, H. R. Blankenship.

LITTLE DAMAGE TO THE ABBOTT LABORATORIES.

A small fire with explosion of gases occurred April 21 on the top floor of one of the buildings of the Abbott Laboratories. Newspaper reports of the extent and character of this accident were grossly exaggerated. The damage was very small, consisting mainly of broken window panes and cracking of temporary partitions. The plant and machinery were injured but slightly, and the entire force went to work the next morning as usual. The Abbott Laboratories have issued a statement positively denying the newspaper reports that this firm is or has been engaged in the manufacture of ammunition or explosives.

We haven't heard of any life insurance companies that have appointed Christian Scientists, Osteopaths, or Chiropractors as medical examiners. Will the members and followers of the pseudo-medical cults please explain?—*Journal of the Medical Society of New Jersey.*

New and Nonofficial Remedies.

Since publication of *New and Nonofficial Remedies*, 1916, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with *New and Nonofficial Remedies*:

STYRACOL TABLETS, 5 GRAINS.—Each tablet contains 5 grains styracol. Merck & Co., New York.

TANNALBIN TABLETS, 5 GRAINS.—Each tablet contains 5 grains tannalbin. Merck & Co., New York.

STANOLIND LIQUID PARAFFIN.—A nonproprietary brand of liquid petrolatum, complying with the standards of the U. S. P., eighth edition, and made from American petrolatum. Standard Oil Company of Indiana, Chicago (*Journal A. M. A.*, April 1, 1916, p. 1027).

Propaganda for Reform.

PRESCRIBING OF NARCOTICS.—The Harrison antinarcotic law exempts from its operations ready-made mixtures containing specified small quantities of narcotics, but requires physicians' prescriptions containing small amounts of narcotics to be registered. The law should be made consistent by requiring the registration of all prescriptions containing narcotics in any amount. The inconsistency in the law should be removed by prohibiting absolutely the sale, except on a physician's prescription, of preparations containing narcotics in any proportion. The continued uses of small doses of a narcotic drug is just as capable of establishing the habit as is the use of larger doses (*Journal A. M. A.*, April 8, 1916, p. 1156).

PIPERAZIN, LYSIDIN, LITHIUM CARBONATE, SODIUM BICARBONATE AND SODIUM CITRATE AS URIC ACID SOLVENTS.—H. D. Haskins has studied the uric acid solvent power of urine of persons taking the various substances classed as uric acid solvents. The investigation led to the following conclusions: 1. Piperazin can cause the urine to dissolve more uric acid than it would without the drug, and this effect is most marked if sodium citrate or bicarbonate be also given and if diuresis be avoided. 2. Lysidin can act as a uric acid solvent, but is not a practical therapeutic agent because of the large doses required. 3.

Lithium carbonate is a uric acid solvent if large enough doses are used, but is unsafe and possesses no advantage over sodium citrate or bicarbonate. 4. Sodium citrate and bicarbonate are reliable and satisfactory uric acid dissolving agents when given in such dosage as to keep the urine alkaline (*The Archives of Internal Medicine*, March 15, 1916, p. 405).

EMETIC ACTION OF STROPHANTHUS NOT DUE TO OIL.—Hatcher and Eggleston have shown that the digitalis bodies produce nausea and vomiting through action on the medulla, and that the direct action on the mucous membrane of the stomach is unimportant. They demonstrated that the fixed oil (fat) of digitalis produced no action and conclude, therefore, that attempts to avoid the emetic action of digitalis by removal of oil from digitalis preparations is of no avail. Similarly Hatcher has recently determined that the oil contained in strophanthus is not the cause of the nausea sometimes produced by this drug. While removal of the oil renders tincture of strophanthus more "elegant" pharmaceutically, such removal is of no therapeutic importance (*Journal A. M. A.*, April 15, 1916, p. 1199).

A MUCH-NEEDED PHARMACOLOGIC INVESTIGATION.—J. D. Pilcher, University of Nebraska College of Medicine, has investigated the action of the uterus of the guinea pig of a number of drugs which are widely used as ingredients of proprietary "female remedies," and which so far have been little, or not at all, studied. Blue cohosh (*caulophyllum thalictroides*) showed a variable tonic effect. Pulsatilla (*anemone pulsatilla* or *pulsatilla pratensis*), unicorn root (*aletris farinosa*), figwort (*scrophularia marylandica*), valerian (*valeriana officinalis*) and skullcap (*scutellaria lateriflora*) were more or less depressant. The following drugs gave negative results: Cramp bark (*viburnum opulus*), black haw (*viburnum prunifolium*), swamp maple (*acer spicatum*), false unicorn (*chamaelirium luteum* or *hellonias dioica*), liferoot (*serecio aureus*), wild yam (*dioscorea villosa*), motherwort (*leonurus cardiaca*), passion flower (*passiflora incarnata*) and squaw vine (*mitchella repens*). It is to be hoped that Pilcher's work will permit the formation of an opinion as to the therapeutic value of those drugs in which some degree of activity has been found (*Journal A. M. A.*, April 15, 1916, p. 1205).

WHY GLYCEROPHOSPHATES?—The glycerophosphates are split up in the intestines into ordinary phosphates and absorbed and utilized, if they are utilized at all. There is no evidence that glycerophosphates have any pharmacologic action to warrant the belief that they are of use as therapeutic agents. The belief in their value is kept alive by the promotion of certain proprietary mixtures. The glycerophosphates will be continued to be manufactured until physicians refuse to prescribe them. A manufacturer has even substituted glycerophosphates for the potent yellow phosphorus in his elixir of phosphorous, nux vomica and damiana, and, so his chemist reports, physicians continue to prescribe the proprietary, the composition of which has been altered (Journal A. M. A., April 15, 1916, p. 1205).

ELIXIR CALCYLATES COMPOUND.—Each dessert spoonful of this specialty is said to contain the "equivalent of" caleylates (calcium and strontium disalieylate) 5 grains, resin of guaiac $\frac{1}{2}$ grain, powdered digitalis leaves $\frac{1}{4}$ grain, powdered squill $\frac{1}{4}$ grain, extract of colehiem seed $\frac{1}{4}$ grain, eascarin 1-16 grain, aromatics. One or two dessert spoonfuls are to be taken three to four times a day. The mixture is to be given in cases of "rheumatism, lumbago, neuralgia, sciatica, etc." If a salieylate is indicated, it should be given in sufficient amount in the form of sodium salieylate; the patient should not be given a preparation containing ingredients in the way of guaiac, squill and colehiem which are not needed. Digitalis is rarely indicated in inflammatory rheumatism and it should never be given in a multiple mixture (Journal A. M. A., April 22, 1916, p. 1307).

EMETIN HYDROCHLORID VARIABLE. — It should not be taken for granted that because a drug bears the name of a definite compound it is true to name and pure, and therefore trustworthy in its action. This fact has recently been demonstrated in regard to emetin hydrochlorid. Two cases in which the administration of emetin hydrochlorid produced symptoms of poisoning (one terminating fatally) at the Johns Hopkins medical clinic led to an investigation by R. L. Levy and L. G. Rowntree, in which the emetin hydrochlorid preparations of five pharmaceutical houses

were used. This investigation led to the conclusion that the products supplied as emetin hydrochlorid are variable in composition and in toxicity to a degree which constitutes a serious danger. It behooves physicians to insist on some declaration from the firm supplying emetin hydrochlorid as to its purity and as to the standard employed. Levy and Rowntree emphasize also the fact that emetin hydrochlorid medication itself is not an innocuous procedure. To avoid the toxic effects of emetin, the dosage should be carefully adjusted for each individual and the treatment should be given in courses at intervals of several days or a week. The subcutaneous method of administration is to be preferred (The Archives of Internal Medicine, March 15, 1916, p. 420).

CACTUS COMPOUND PILLS.—A pharmaceutical firm makes Pills Cactus Compound (heart tonic), each of which is said to contain: "Cactus grandiflorus $\frac{1}{2}$ grain, sparteine sulphate 1-40 grain, digitalin, pure (German) 1-125 grain, strychnin sulphate 1-500 grain, glonoin (nitroglycerin) 1-500 grain, strophanthin 1-5000 grain." The combination is irrational and the dosage of the individual drugs, in most instances, absurdly small. Every one of the ingredients except digitalin may be disregarded either because of the inertness of the small amount present, and the treatment then becomes one of digitalis. The selling name of "Cactus Compound" is a misnomer, as the activity of the pill is that of the small dose of the digitalis glucoside. The pill is an illustration of how worthless drugs are perpetuated. At one time it was thought that cactus had therapeutic value. During that time many "specialties" and proprietaries bearing its name were put on the market. Although the drug is now known to be worthless, these specialties continue to be sold (Journal A. M. A., April 29, 1916, p. 1387).

Obituary.

DR. GARLAND S. SAYLORS.—After a brief illness Dr. Garland S. Saylor, age 29, died Thursday, May 4, 1916, at his home in Floral, Independence County, Arkansas. Dr. Saylor had been married four months and is survived by his wife and one brother.

County Societies.

CHICOT COUNTY.

(Reported by J. F. Curtis, Sec.)

The Chicot County Medical Society met at Dermott, April 21, in the parlors of the Dermott Hotel.

Present: Banks, Barlow, and Ringgold, of Dermott; Henry, McGehee, Booth, and Curtis, of Lake Village; Douglass, of Eudora, and Rigdon, of Readland.

After some interesting discussions among them, a report of a Cesarian section by Dr. McGehee, the Society adjourned to meet at Lake Village in June, at which time they hope to have with them Drs. Haas and Taylor, of the United States Public Health Service, who have charge of the demonstrations of malaria eradication at Crossett and Lake Village.

MONROE COUNTY.

(Reported by P. E. Thomas, Jr., Sec.)

The Monroe County Medical Society met in regular session at Holly Grove, on Tuesday, May 9, 1916, at 3:00 p. m.

Present: A. H. Gilbrech, P. E. Terry, N. E. Murphy, T. B. Sylar, P. E. Johnson, P. E. Thomas, Jr. Visitor: Dr. N. B. Estes, Holly Grove.

A paper entitled "Diphtheria," with report of four cases, was read by Dr. P. E. Terry, of Blackton. This paper afforded an interesting discussion by all present.

A case of "acute interstitial nephritis" was reported by Dr. P. E. Johnson, of Holly Grove.

A case of insanity and mania due to pellagra was reported by Dr. P. E. Thomas, Jr.

After attending to business the President appointed Drs. P. E. Johnson and N. E. Murphy to read papers at next meeting, which will be in Clarendon, on Tuesday, June 13.

FAULKNER COUNTY.

(Reported by J. S. Westerfield, Sec.)

The Faulkner County Medical Society held its regular meeting at Conway on March 16, President J. M. Muse in the chair.

By invitation, Dr. J. G. Watkins, of Little Rock, read a paper entitled, "Acute Otitis Media," which was well received and fully discussed.

A petition from Dr. E. O. Brannon, of Conway, was received and referred.

The April meeting was held on April 20, President J. M. Muse in the chair.

The principal event of this meeting was an informal discussion regarding the establishment of a county hospital. After free and favorable discussion, a committee was appointed

to canvass the matter with the people and report.

The matter of fees, delinquencies, and collections was considered, but no action taken.

Dr. E. O. Brannon was elected to membership.

Both meetings were well attended.

HOT SPRINGS-GARLAND COUNTY.

The following are the officers of Hot Springs-Garland County Medical Society: President, John M. Proctor, Hot Springs; Vice President, S. D. Weil, Hot Springs; Secretary and Treasurer, W. F. Mount, Hot Springs. Board of Censors, W. S. Wooten, E. D. Holland, and W. H. Connell. Delegates Arkansas Medical Society, L. H. Barry, G. A. Hebert, John S. Wood. Alternates, W. V. Laws, A. H. Tribble, and A. U. Williams.

ASHLEY COUNTY.

(Reported by J. C. Simpson, Sec.)

There was a meeting of the Ashley County Medical Society at Hamburg, April 12, in Dr. Simpson's office.

Meeting called to order by President Emeritus Dr. W. S. Norman, as our recent President, Dr. E. M. Scott, had died since last meeting. 11 of 16 members were present.

The following officers were elected:

W. H. Shipman, of Montrose, President.

J. C. Simpson, of Hamburg, Secretary and Treasurer.

E. D. Erwin, of White, Delegate to State Association.

A. E. Cone, of Portland, alternate to State Association.

New member, Dr. L. C. Barnes, of Hamburg.

Moved and carried that a committee be appointed to draft resolutions on Dr. Scott's death, a copy of which is to be sent Dr. Scott's family, a copy to be published, and a copy to be placed in the minutes of the Society.

Doctors of antimalarial campaign at Crossett were elected honorary members of the Society during their stay in the county.

Resolutions made indorsing the Good Roads Movement.

Refreshments and cigars.

Adjournment.

UNION COUNTY.

(Reported by H. H. Niehuss, Sec.)

The Union County Medical Society met in El Dorado Monday, April 3. Present: McGraw, Mitchell, Purifoy, Wharton, and Niehuss.

Dr. Mitchell read a paper on "Whooping Cough."

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